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ABSTRACT

Eight papers on leadership which were presented at a teacher leadership conference on the development of common core curriculum for vocational education teachers are contained in this booklet. The title and authors are as follow: "The History and Philosophy of Vocational Education," by Lillian King: "Standard Characteristics of Vocational Education," by Don Bright: "Principles of Courses of Study Construction," by Carl Gorman and William Sutton: "Administration of Vocational Education," by Charles Nichols: "Supervision of Vocational Education," by Earl Matthews and Paul Muntz: Evaluation of Vocational Education," by W. E. Asche: "The Role of Vocational Teacher Education in the Future," by Darrell Parks: and "Occupational Competency for Quality Vocational Education," by Lem Tunkel. Each paper generally addresses six primary points of emphasis: (1) need for the proposed course, (2) objectives, (3) content, (4) instructional strategies, (5) evaluation, both formative and summative, and (6) related resources. (JH)

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Topic Analysis for Vocational Teacher Education

Leadership Development

CE 022 298

U.S. DEPARTMENT OF HEALTH,
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Foreword

In recent years, extensive efforts have been exerted from a state vocational education perspective to impact upon the professional staff development of state leadership and local program personnel. Teacher education has been involved in these staff development activities, but formalized efforts which have implication for statewide pre-service and baccalaureate vocational education professional personnel development programs have been limited.

During recent years there have been sweeping institutional reforms for the professional preparation of teachers in Ohio, adopted by the State Board of Education. The resultant institutional restructuring to meet these standards, has replaced the traditional approach of adding or deleting courses for certification as a means of preparing teachers, and are designed to prepare teachers who will possess sound professional knowledge of the learning process, have competencies in the clinical use of sophisticated diagnostic instruments, and posses the ability to work effectively with youth from various social, economic and racial environments.

The primary purpose of the teacher educator conference was to "enhance the effectiveness of vocational education professional personnel development program through the bringing about of an awareness and understanding of teacher education standards and their implication for program redesign, and the review of common core curricula and program criteria for vocational education personnel development." This expressed purpose was met through the combined efforts of many teachers educators and other state staff who designed the program. Special acknowledgement is extended to the teacher educators who prepared, presented, and revised the professional papers which focused on common core curricula for vocational education. During the two and one half day conference, eighty-five teachers educators from various universities across Ohio had the opportunity to react to and critique the written presentations. Each paper addressed six primary points of emphases: (1) Need for the proposed course, (2) Objectives, (3) Content, (4) Instructional Strategies, (5) Evaluation, both formative and summative, and (6) Related resources.

This publication is a product, of the teacher education conference. We are indebted to the various publication authors and to the conference participants for their professional counsel and written critique of the various topical analyses. The concepts and ideas contained in these papers are the sole responsibilities of the authors and are to serve as a basis for discussion and further development.

Byrl R. Shoemaker
Executive Director,
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Topic Analysis for Vocational
Teacher Education

THE HISTORY AND PHILOSOPHY OF VOCATIONAL EDUCATION

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HISTORY AND PHILOSOPHY OF VOCATIONAL EDUCATION

NEED FOR THE COURSE

As a result of the Vocational Education Act of 1963, programs in vocational education at the secondary, post-secondary, and adult educational levels are being expanded to reach youth and adults who have varied educational and occupational goals, interests, and needs.

In Ohio, legislation enacted by the 108th General Assembly required each of the 633 school districts to submit a plan for vocational education to the State Board of Education by April 1, 1970. From these plans, the State Board developed a statewide master plan of 102 vocational education planning district. As a result of the statewide master plan, 40 percent of Ohio's high school youth have access to vocational education programs. Projections for adult vocational education is as expansive.

The state universities in Ohio are preparing students to teach, to counsel, to supervise, and to direct vocational programs at the secondary and adult level in the five services of vocational education on the secondary level as well as the adult level. "History and Philosophy of Vocational Education" is designed to enable these graduates to develop a philosophy and understanding of vocational education in order to give purpose to vocational education.

Graduates need to know what sociological and technological changes influenced occupational roles, what philosophies were formulated as a result of these changing occupational roles, and the legislation which resulted.

Social Premise

"The institution of vocational education is understood in relation to three components: people, society, and technology. All institutions, including vocational education are directed and shaped by strong and sometimes strange forces. In general, each stage in the development of vocational education begins with the existence of a social condition. Philosophical inquiry established a new view of what is possible for man to become. Out of this disparity between the social condition (what is) and the philosophical condition (what should be) grows a recognition of a need to bring *what is* more in line with *what should be*. At some point in time a technological advance is achieved to close the gap between

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the social condition and the philosophical position. Adjustment in this manner leads to a new social condition and the cycle is repeated. All the components of vocational education are changing.

Jobs in American society during the early stages of technologies demaned little education and little experience and specialization was not a particularly important concept. Currently, potential workers need to possess high educational achievements and more experience, and vertical specialization is an important concept. Also, in many current occupational areas today, up-grading vertical specialization and differentiated entry points can be observed," (John F. Thompson, pp. xi-xii).

The graduate should be able to define vocational education today based on emerging philosophies. Based on an emerging philosophy, a definition of vocational education today is "any education that provides experiences, then visual stimuli, affective awareness, cognitive information, or psychomotor skills; and that enhances the vocational development process of exploring, establishing, and maintaining oneself in the world of work." (Thompson, p. 216.)

COURSE OUTLINE

I. Development of Vocational Education Through Social Conditions
  A. Social Premise
  B. Emergence of Social Conditions and Their Effects
    1. Colonial period
    2. Industrial revolution
    3. Rise of labor unions
    4. Practical arts—trade schools
    5. Emergence of "vocational education" — 1906-1917
    6. Changes in societal structure from 1917-1930
    7. Depression
    8. World War II and post-war reform
    9. Technological revolution

II. Historical Forces Influencing Vocational Education
  A. The Change from Agrarian Society
  B. Economic View of the Worth of Man
  C. Pluralism of Institutions
  D. Wars
  E. National Study Panels
  F. Employer Associations and Labor Groups
  G. Change in Occupational Structures

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III. Philosophies of Vocational Education
    A. Colonial Philosophy
    B. Philosophy During America's Expansion Years (1776-1865)
    C. Practical Arts Philosophy (1865-1885)
    D. Trade Schools Philosophy (1885-1906)
    E. Emerging Philosophy (1906-1917)
    F. Contemporary Philosophies
        1. Prosser's 16 theorems

IV. Federal Legislation Affecting Vocational Education
    A. Morrill Acts of 1862-1890
    B. Smith-Lever Act of 1914
    C. Smith-Hughes Act of 1917
    D. Smith-Fess Act of 1920 (Vocational Rehabilitation for Industrial Injuries and War Veterans)
    E. George-Reed Act of 1929
    F. George-Ellzey Act of 1936
    H. George-Barden Act of 1946
    I. National Defense Education Act of 1958 (Amendment to George-Barden Act)
    J. Vocational Education Act of 1963
    K. Manpower Development and Training Act of 1966
    L. Elementary and Secondary Education Amendments of 1966
    M. Vocational Education Amendments of 1968
    N. Vocational Education Act of 1972
    O. Vocational Education Act of 1976

V. Administration of Vocational Education
    A. Federal Level
    B. State Level
        1. State Plan for Vocational Education
        2. Organizational chart for state department of education
        3. State foundation bill
        4. State leadership for pre-service and in-service of staff and teachers
    C. Local Level
        1. Vocational Education Planning Districts (VEPD)
        2. Local Education Agency Planning (LEAP)
    D. Role of Advisory Committees

VI. Organization and Operation of Vocational Education
    A. Career Education
        1. Goals of career education
        2. Cluster approach

    3. Career education continuum
    4. Available career education materials
  B. Programs for Youth
    1. Vocational agriculture
    2. Vocational business and office education
    3. Vocational distributive education
    4. Vocational home economics
    5. Vocational trade and industrial programs
    6. Vocational guidance services
  C. Vocational Programs for Adults
    1. Preparatory programs
    2. Extension programs
    3. Apprenticeship programs
    4. U.S. Department of Labor programs
      a. Manpower development and training
      b. CETA programs
      c. Skill Centers—Job Corps

VII. Emerging Philosophy and Definition of Vocational Education
  A. Analysis of Current Basic Assumptions
    1. Reliability
    2. Validity
    3. Consistency
  B. Emergent Definition of Vocational Education

DEVELOPMENT OF VOCATIONAL EDUCATION THROUGH SOCIAL CONDITIONS

A. Social Premise

Objective:

The student will develop and explain an example of an established relationship between a social condition and a philosophical condition as it relates to vocational education in a period of American history.

Instructional Strategies:

1. Explain and discuss social premise with relationship to social conditions, philosophies, and legislation. Play audio tape on "Changing Functions of Urban Schools—the Role of Industry." (audio tape that explains how industrial changes influence education) (25 minutes)
2. Present, show and discuss videotape "Only Yesterday" (How American society has been in constant change since colonial times) (29 minutes)

Evaluation:
The student will write a paper in class developing an explaining example of an established relationship between a social condition and a philosophical condition as it related to vocational education in a period in history or give contrast based on various social conditions or philosophies.

B. Emergence of Social Conditions and Effects on Occupational Roles

Objective:
The student will identify various social conditions and relate them to their effect on occupational roles and educational policies.

Instructional Strategies:

1. Invite an interesting college professor to lecture on the colonial structure of society with discussion following.
2. Present, show and discuss two film strips: (1) "Nineteenth Century America to 1860" (25 slides with record): (2) "Industrialization of the United States" (72 film stripes with records)
3. Present, show, and discuss: (1) "Nineteenth Century America After 1860" (25 slides with record); (2) Migration and the City Experience, 1890-1941." (318 slies with records)
4. Invite an industrial director of company training to give background of present and past company training policies.
5. Assign following topics to students to write papers or give presentations on:
    a. The Manual Element in Education
    b. The Fruits of Manual Training
    c. The Philosophy of Booker T. Washington on Vocational Education
    d. Massachusetts' Dual Education System
    e. Child labor
    f. Industrial Education and the Place of Industry in Public Education
    g. Labor's Philosophy of Industrial Education
    h. The Vocational Education of Females
    i. Influence of 1914 Report of Commission on National Aid to Vocational Education

j. Prosser's Philosophy of Practical Arts and Vocational Guidance
k. Higher Education's Opposition to Vocational Education (1908)
l. Edison G. Cooley's Chicago Plan for Vocational Education
m. John Dewey's Opposition to the Chicago Plan
n. John Dewey's Opposition to the Chicago Plan
o. Need for Redistribution of Vocational Funds (1938)
p. Life Adjustment Education (Commission Report of 1951)
q. James B. Conant's Philosophy of Integration of Schooling with Employment Needs for Urban Youth
r. 1968 Report of National Advisory Council
s. Sidney P. Marland, Jr.'s Philosophy of Career Education

Evaluation:
Student will match time lines with social conditions and occupational roles.

HISTORICAL FORCES INFLUENCING VOCATIONAL EDUCATION

Objective:
The student will relate the historical forces influencing vocational education from the change from Agrarian society to the present day change in occupational structure.

Instructional Strategies:
1. Students will be assigned readings.
2. Students will be given assignments to write reports on one of the specific historical forces influencing vocational education listed in the course outline and to analyze the historical force and its influence on the philosophical principles of that time.
3. Students will give oral summaries of the written reports of the historical forces influencing vocational education as they relate to the social conditions and the philosophical concepts of that time.

4. The instructor will lead discussions on other factors that have a significant impact on vocational education—Influence of State Legislation, Effects of Economic Flunctuation, Pragmatism, The Popular Press and Vocational Education, Professional Organizations, and Worker Mobility.

Evaluation:

1. The student will submit a written report on an assigned topic of a historical force influencing vocational education. Each report will be evaluated on the content based on the analysis of the historical force, its relationship to the social conditions, and its influence on the philosophical principles of that time.
2. Given matching statements on the historical forces, the students will select the influences on the philosophical principles of that time.

PHILOSOPHIES OF VOCATIONAL EDUCATION

A. Colonial Philosophy

Objectives

1. The student will identify the types of apprenticeships during the Colonial Period.
2. The student will differentiate among the basic concepts of apprenticeship philosophies of the colonies in the North and the colonies in the South.

Instructional Strategies:

1. Students will participate in a panel discussion and research the assumptions, beliefs, principles and philosophies gleaned from a list of readings.
2. The instructor will summarize the various presentations and conduct a discussion on material presented.

Evaluations:

1. Panel participants will be evaluated on written reports with references and on panel presentations.
2. Multiple choice questions will be given on voluntary and compulsory apprenticeships and the beliefs and principles of the Colonial Period.

B. Philosophy During America's Expansion Years (1776-1865)

Objective:
The student will explain the reasons for the decline in the apprenticeship concept.

Instructional Strategy:
The student will read assigned materials and participate in discussions on child labor concept and the demands for practical agricultural training.

Evaluation:
Given a case situation on the decline of the apprenticeship concept to explain why the changing role of occupations and philosophy occurred during the Colonial Period.

C. Practical Arts Philosophy (1865-1885)

Objective:
The student will explain the principles of the Practical Arts philosophy as it pertains to the concept of vocational education during the period 1865-1885.

Instructional Strategies:

1. Students will utilize library resources for research papers and/or panel presentation on the Practical Arts philosophy or contrast the Practical Arts philosophy with the philosophy during the expansion years (1776-1865).
2. Instructor will summarize and re-emphasize the concepts and give the differences with reference to the Colonial philosophy, philosophy during America's expansion years, and the Practical Arts philosophy.

Evaluation:
Students will give explanation of the principles of the Practical Arts philosophy as it pertains to the concept of vocational education during the period 1865-1885 through an essay question or presentation.

D. Trade School Philosophy (1885-1906)

Objectives:

1. The students will identify the two fundamental propositions that developed out of the trade philosophy.
2. The students will discriminate among the three types of trade schools.

Instructional Strategies:

1. The instructor will lecture on background material on the three types of trade school's and the two fundamental propositions that nearly all trades or occupations can be taught in school and that society benefits in the form of a higher standard of living from trade instruction.
2. Students will be assigned various readings.

Evaluations:

1. Given multiple choice statements, the students identify the two fundamental propositions that developed out of the trade philosophy.
2. The student will be given an explanation of the three types of trade schools and from the explanation will write a short paragraph giving the philosophy behind the trade school movement.

E. Emerging Philosophy (1906-1917)

Objective:

Students will determine the trend toward vocational education, drawing upon the philosophies of John Dewey, Edwin G. Cooley, and the National Society for the Promotion of Industrial Education.

Instructional Strategies:

1. Students will simulate a Congressional committee meeting of this period using original documents and transcripts from the Congressional Record with various groups of students representing the various philosophies of the period.
2. Students will conduct a hypothetical debate between John Dewey and Edwin G. Cooley on their differing philosophies of secondary education.
3. The instructor will lecture on topics not thoroughly covered as necessary through the simulated meeting or debate.

Evaluations:

1. Students will write a critique evaluating the accuracy of the facts on the philosophical trends of the period from 1906-1917 which were presented in the simulated meeting or through the hypothetical debate.
2. Give matching or multiple choice questions describing the varying philosophies of the period, the students will select the proponents of the varying philosophies.

F. Contemporary Philosophies

Objectives:

1. The student will contrast and compare the philosophies expressed in the Cardinal Principles of Education of 1918 with the philosophies of vocational education of the 1970's.
2. The student will define those precedents and concepts in education established during times of world conflict that have helped and/or hindered vocational education.

Instructional Strategies:

1. Instructor will present the relationships of the social, industrial, economic, and war factors as they influence the emerging contemporary philosophy of vocational education.
2. Instructor will give several groups specific actual problem situations involving social, industrial, economic, and/or war factors. The students will select a leader and use group decision-making techniques. The students will then present solutions and relate these to present vocational philosophies.

Evaluations:

1. Given the Cardinal Principles of 1918, the students through an essay question will contrast and compare the principles with the philosophies of vocational education of the 1970's.
2. Given multiple choice questions and/or matching statements (i.e. stated concepts as to whether negative or positive effect on vocational education, time frame, etc.), students will select or match correctly.

FEDERAL LEGISLATION AFFECTING VOCATIONAL EDUCATION

Objective:

The student will relate the important feature or features of each act to the social conditions and philosophical concepts of that period.

Instructional Strategies:

1. Instructor will give a brief overview of each act.
2. Each student will be given the assignment to write a report on one specific act from a list of 15 Federal acts affecting

vocational education in which each will relate the important features of the act to the social conditions and the philosophical concepts of that period.

3. Student will give oral summaries on the major features of the acts as they relate to the social conditions and the philosophical concepts of that time.
4. Show the film strip with tape of Vocational Act of 1976.
5. Invite local congressman or local congressional aid to give interpretations of recent vocational legislation, current studies, and projected legislation.
6. Establish a planned conference call within classroom with congressmen (one proponent and one opponent) on controversial legislation on vocational education or a current issue and also relate viewpoint of class.

Evaluations:

1. The student will submit a written report on an assigned Federal law affecting vocational education. Each report will be evaluated on the content based on the important features of the act and the analysis of the related social conditions and philosophical principles of that period.
2. Given matching statements on the content of various acts, students will select the correct name of the Federal legislation.

ADMINISTRATION OF VOCATIONAL EDUCATION

A. Federal Level

Objective:

The student will understand the overall policy for administration of vocational education established through federal legislation and the principle of a federal-state cooperative relationship.

Instructional Strategies:

1. The instructor will show through the use of a chart the influence of the various federal legislation on state legislation and the effect on the administration of vocational education.
2. Student will be given assigned readings on the rules and regulations of the Vocational Education Act of 1976.

3. A panel of students will be assigned to present regulations of the most recent federal laws as they pertain to funding and administering vocational education and career education for youth and adults including the Manpower Development and Training Act and the Comprehensive Education Training Act.
4. Invite a college professor from Special Education Department or a graduate student from the Special Education Department or a local school administrator of special education to explain the latest federal legislation for the physically and mentally handicapped and the disadvantaged.
5. The instructor will summarize the presentations on regulations and administering of vocational education on the federal level and conduct a discussion on the presentations.

Evaluation:

Multiple choice questions will be given on funding at national level, regulations of Vocational Act of 1976, CETA, Manpower Development and Training Act, and recent federal legislation on the physically and mentally handicapped.

B. State Level

Objectives:

1. Having reviewed the State Plan for Vocational Education, the student will analyze Ohio's goals for vocational education and technical education and how they relate to federal legislation.
2. The student will explain the organization of the Division of Vocational Education and how the State Plan for Vocational Education is administered.
3. The student will understand how Division of Vocational Education of the State Department of Education distributes federal and state funds to local schools.
4. The student will identify the role of vocational state staff in pre-service and in-service in the areas of facilities and equipment, curriculum development, instruction, and pupil personnel services.

Instructional Strategies:

1. Students will be assigned readings.
2. Instructor will show film — "Vocational Education: Progress and Promise."

3. Instructor will review the objectives of the State Plan through the use of transparencies and show how they relate to federal legislation.
4. Invite a member of State Division of Vocational Education to explain the State Foundation Bill.
5. Instructor will share and review materials developed by Division of Vocational Education in the areas of facilities and equipment, curriculum development improvement of instruction, and pupil personnel services.
6. Instructor will distribute copies of VE-21, VE-22, VE-23, and VE-26 forms and discuss use of forms and of follow-up informations on vocational graduates.
7. Research on the effective use.

Evaluation:

Multiple choice questions or a quiz with questions relating to the State Plan, funding, opening and closing reports and follow-up will be given.

C. Local Level

Objectives:

1. The student will identify the three options from which a local school district can choose to meet the Ohio Legislature's mandate to serve youth and adults who are interested, qualified, and will benefit from vocational education and understand the formation of a Vocational Education Planning District (VEPD).
2. The student will explain the role of functions of the local citizens advisory committees, Local Education Area Planning (LEAP), and Program Review for Improvement Development and Expansion of Vocational Education, Guidance and Career Education (PRIDE).

Instructional Strategies:

1. The instructor will present through the use of transparencies the three options from which a school district can choose to form a VEPD and also show the map of the 102 VEPD's.
2. The students will participate in a field trip to a joint vocational school to hear the superintendent or vocational director explain the administration of their programs and to review the programs.

3. Invite the vocational director of a VEPD to explain LEAP and the use of Management by Objective (MBO) concept and the role of the vocational director and the vocational supervisor with question-and-answer period to follow.
4. Invite a State Supervisor of Vocational Education to describe the process of PRIDE and the structure of the review team and committee.
5. Discuss issues dealing with vocational education that face a VEPD.

Evaluations:

1. The student will identify acronyms of VEPD, LEAP, MBO, and PRIDE and give a brief explanation of each.
2. Evaluate students' participation in discussion.

D. Role of Advisory Committees

Objectives:

1. The student will explain the role of the National and State Advisory Councils for Vocational Education.
2. The student will identify the type of persons to serve on a local advisory committee for vocational education and explain how to effectively use an advisory committee.

Instructional Strategies:

1. Assigned students will present oral reports on the structure, role, and functions of the National and State Advisory Councils of Vocational Education. (Invite a member of the Council to do this if one is in your area.)
2. Instructor will review recommendations of 1968 Advisory Council and relate how they were enacted into law.
3. Instructor will present the class with available published materials from the State Advisory Committee for Vocational Education and review their last annual report.
4. Students will be assigned to read the "Effective Use of Advisory Committees," published by the Ohio Division for Vocational Education and participate in discussion.
5. Students will be assigned to attend a local advisory committee and write a summary of the meeting and give their critique of the meeting.

Evaluations:

1. Students participating in oral reports will be evaluated on presentations.
2. Given short essay questions, the student will identify recommended composite of local advisory committees and give a written explanation on the effective use of an advisory committee.
3. Evaluate written report on summary and critique of local advisory committee meeting.

ORGANIZATION AND OPERATION OF VOCATIONAL EDUCATION

A. Career Education

Objectives:

1. The student will define career education and explain the goals of career education.
2. The student will explain the career education continuum and describe how a school system could implement a career education program.

Instructional Strategies:

1. Assign readings and give handouts on how schools are integrating career materials into all disciplines.
2. Invite local director of career education to explain how to implement career education in the school program with question-and-answer period following.
3. Show film developed by State Department on Career Education.
4. Students could be assigned to field experiences to contribute in preparation of materials or explaining their occupations to grade school and high school students.

Evaluations:

1. Multiple choice questions or matching questions on the career education continuum.
2. Evaluate contribution in field experience involved in local career education program.

B. Programs for Youth

Objectives:

1. The student will identify the fine services of vocational education in which programs are offered for youth and

adults and will identify the certification requirements for the vocational teacher, coordinator, supervisor, and director on the state level.

2. The student will explain how to integrate youth organization activities as a part of the vocational programs for youth in developing leadership as it relates to the Vocational Education Act of 1976.

Instructional Strategies:

1. After the showing of the film, "Vocational Education: Progress and Promise," summarize and discuss the various programs shown.
2. If possible, invite either state supervisor of the various services or a local vocational director to explain various programs in each service on the high school level and adult level.
3. Distribute handouts of available programs in Ohio published by State Advisory Council for Vocational Education.

Evaluations:

1. Student will identify acronyms as BOE, IOE, COE, DE, OWE, OWA, DCT, OOEA, VICA, DECA, HERO, and FFA.
2. Students will answer short essay answers to questions relating to curriculum application through youth clubs, identification of services of vocational education.

C. Programs for Adults

Objective:

The student will identify the adults served through vocational and postsecondary education relative to the Vocational Education Act of 1976, Manpower Development and Training Act (MDTA), Comprehensive Employment Training Act (CETA), and the Job Corps Skill Centers and the who administers the various programs.

Instructional Strategies:

1. The instructor or a state vocational supervisor or a local vocational director or adult coordinator will explain and lead a discussion on the criteria for administering adult and postsecondary programs.
2. Invite the CETA coordinator in your local area to explain the types of programs funded and administered through CETA and also the cooperation between the Division of Vocational Education and CETA.

3. The student will interview an adult instructor or CETA instructor and present an oral or written report on the type of program, criteria for adult program participants, curriculum, evaluation, job placement, and the funding and administration of the program.

Evaluation:

1. The student will be evaluated either on oral or written report on the interview of an adult or CETA instructor.

EMERGING PHILOSOPHY AND DEFINITION OF VOCATIONAL EDUCATION

Objective:

Students will understand that vocational education are based on a set of assumptions which must be tested for reliability, validity, and consistency and will identify what today's assumptions are for education and the world of work.

Instructional Strategies:

1. Students will be assigned readings.
2. The student will be assigned to write a short paper comparing his/her readings on Philosophy of Education and Philosophy of Vocational Education.
3. The instructor will divide class in groups and students will elect a leader and recorder to report back to class in which assumptions and beliefs on education and vocational education will be discussed and then analyzed on the basis of reliability, validity and consistency.

Evaluations:

1. The written comparison on the readings on the Philosophy of Education and the Philosophy of Vocational Education will be evaluated.
2. The student will write the emergent definition of vocational education based on group and class discussion and determine if old assumptions need to be reevaluated or re-examined and on what basis.

SUGGESTED RESOURCE MATERIALS

Books

Flanagan, John C.; Mager, Robert F.; and Shanner, William M. *Behavioral Objectives, A Guide to Individualizing Learning.* California: Westinghouse Learning Press, 1971.

Gill, Angelo C. Sr., *Modern Organizations of Vocational Education.* University Park: The Pennsylvania State University Press, 1976.

Grimes, Don M. *Adult Education and the Employabillity Training Philosophy.* Sacramento: California State Department of Education, 1972.

Hall, Clyde W. *Black Vocational Technical and Industrial Arts Education.* Chicago: American Technical Society, 1973.

Hodell, Louise. *A Case History in the Treatment of Academic Failure: Some Suggestions for Professional in Work/Training Programs for the Disadvantaged.* New York: Mobilization for Youth, Inc., 1968.

Law, Charles J., Jr. *A Search for a Philosophy of Vocational Education.* New York: 1975.

Lazerson, Marvin, Ed.; Grubb, W. Norton, Ed. *American Education and Vocationalism: A Documentary History, 1870-1970.* New York: Teachers College Press, 1974.

Mager, Robert F., *Measuring Instructional Intent or Got A Match.* California: Lear Siegler, Inc./Fearon Publishers, 1973.

MSS Information Corp. *The Philosophy and Foundations of Vocational Education.* New York: By the author, 1973.

Pucel, David J. and Knaak, William C., *Individualizing Vocational and Technical Instruction.* Columbus: Charles E. Merrill Publishing Company, 1975.

Roberts, Roy W. *Vocational and Practical Arts Education.* New York: Harper & Row Publishers Incorporated, 1971.

Strait, Don; Hartzler, F. E. *Principles and Philosophy of Vocational Education.* Topeka: Kansas State Board for Vocational Education, 1967.

Thompson, John F. *Foundations of Vocational Education, Social and Philosophical Concepts.* New Jersey: Prentice-Hall, Inc., 1973.

Schaefer, Carl J. and Kaufman, Jacob J., *Vocational Education: Social and Behavioral Perspectives.* Massachusetts: Heath Le[illegible]gton Books, D.C. Heath and Company, 1971.

Periodicals and Pamphlets

Arnold, Walter M., "Vocational Education—Its Role Today," *Theory Into Practice.* (1964) pp. 163-166.

Bolger, J., "First 100 Years in Vocational Education," *Business Education World.* (September 1964), pp. 161-162.

Brown, Herman D.; Grimes, Jay P. "Polarization in vocational Philosophy," *Agricultural Education Magazine* 43, 11 (May 1971), pp. 278-279.

Brown, Herman D.; Grimes, Jay P. "Polarization in Vocational Philosophy," *Journal of the American Association of Teacher Educators in Agriculture.* 12, 1, (March 1971) pp. 13-18.

Byrnside, O. J. Sr. "Proposed Vocational Education Legislation: Challenging Opportunities for Business Educators," *Business Education Forum* (May 1974) pp. 5-8.

Craig, Robert Paul, "Philosophy of Education and Vocational Arts Education: An Interdisciplinary, Competency-Based Program," *Illinois Career Education Journal,* 33, 4 (Spring 1977) pp. 30-31.

Hudson, David W. "Rehabilitation Philosophy and Middle-Class Values," *Journal of Rehabilitation,* 38, 5 (September/October 1972) pp. 34-35.

Klinkhamer, George, "Career Education as a Philosophy and a Practice: An Interview with George Klinkhamer," *Teaching Exceptional Children,* 5, 3 (Spring 1973) pp. 124-127.

Logan, W. B. "Vocational Education—Facts and Misconceptions," *Theory In Practice,* 3 (December 1964) pp. 161-162.

McCurdy, Jack, "New School Plan: Train for Jobs," *The Los Angeles Times,* 27 (February 1973) pp. 1-A, 2-B, 3-B.

Nash, Robert J. and Agne, Russell M., "A Case of Misplaced Relevance," *The Journal of Teacher Education,* 24 (Summer 1973) pp. 87-92.

Rumpf, Edwin L. "Vocational Education Breakthrough," *American Education* 11 (January 1975) pp. 22-24.

Spitzer, Sally, "Career Education: A New Name for an Old Game," *EPIC* (National Urban League) 1, 1 (Summer, 1972).

Stallard, John J. "Vocational Education: Its Philosophy in Transition," *Tennessee Education*, 5, 1 (Spring 1975) pp. 20-23.

Williams, Lloyd P. "The Struggle for Balance — Vocational Education in the Western World," *Phi Delta Kappan* 46 (April 1965) pp. 355-359.

Williams, Robert Bruce "A Philosophical Reappraisal," *Journal Industrial Arts Education Special Issue*, 29, 4 (1970) pp. 13-14.

Wirth, Arthur G. "John Dewey's Philosophical Opposition to Smith-Hughes Type Vocational Education," *Educational Theory*, 22, 1 (Winter 1972), pp. 69-70.

Wirth, Arthur G. "Philosophical Issue in the Vocational-Liberal Studies Controversy (1900-1917): John Dewey vs. the Social Efficiency Philosophers," *Studies in Philosophy and Education*, 8, 3 (Winter 1974) pp. 169-182.

Wirth, Arthur G. "Charles A. Prosser and the Smith-Hughes Act," *Educational Forum* 36, (March 1972) pp. 365-373.

Worthington, Robert "Why Career Education?" *Thrust for Educational Leadership*, 1 (April 1972) p. 5.

Reports

Barlow, Melvin L. *Implications From the History of Vocational Education*, Occasional Paper No. 15. Columbus: Ohio State University—Center for Vocational Education, 1976.

Hoffman, Allan M. and Hoffman, Diane R. *A History of Vocational Education*. 1976.

Yearbook

Barlow, Melvin L. Ed. "The Philosophy for Quality Vocational Education Programs," *Fourth Yearbook of the American Vocational Association*. Washington, D.C.: American Vocational Association, 1974.

Film and Slides

"Changing Functions of Urban Schools — The Role of Industry"
    Audio-tape — 25 minutes
    Educational Technology Magazine
    Englewood Cliffs, New Jersey
"Only Yesterday"
    Video-tape — 29 minutes
    Public Television Library
    Washington, D.C.
"Nineteen Century America — To 1860"
    25 slides
    Sandak, Inc.
    New York, New York
"Nineteen Century America—After 1860"
    25 slides
    Sandak, Inc.
    New York, New York
"Industrialization of the U.S."
    72 slides
    Harcourt, Brace & World
    New York, New York
"Migration and the City Experience—1890-1941" (Negroes/Europeans)
    318 slides
    New York State Historical Association
    Cooperstown, New York

Annotated Bibliography

Books

Atkinson, Marilyn; and Others. *Career Education: Learning with a Purpose. Secondary Guide–Volume 6. Social Studies, History and Government, Contemporary Issues, Consumer Economics, Sociology and Psychology, Career Information, Field Trip Sites and Guest Speakers.* Washington, D.C.: Office of Education.

The guide offers a compilation of teacher-developed career education materials which may be integrated with secondary level curriculum in social studies. Suggested activities and ideas are presented for the following subject areas and related units in social studies: history and government (26 pages), contemporary issues (49 pages), consumer economics (65 pages), sociology and psychology (23 pages), and career planning and decision making (39 pages). Objectives, teaching procedures, and resources and materials are presented for each unit. Sample instructional materials are included in the career planning unit. A 13-page list of suggested local field trip sites and guest speakers is included.

Beringer, Roger; Strain, Mary Pat. *Teaching Career Education in Social Studies, Grades 10-12. World Culture, Ancient and Medieval History, Modern History. Resource Manual No. 314.* Cincinnati: Cincinnati Public Schools, 1977.

Activities and teaching strategies proposed in this resource manual are intended to help social studies teachers at the high school level in adapting the career education philosophy to the classroom. The manual consists of two parts. Part 1 identifies goals and objectives of career education and various social studies subjects (world culture, ancient and medieval history, modern history). Part 2 suggest activities and teaching strategies keyed to the goals and objectives. Included along with the activities are the following topics: definitions and emotions, comparing cultures, immigration, prejudice, education and democracy, comparing education, feudal system, influence of India, high school culture, United States entry into World War II, inventions, inflation, post war economics the apprentice system, technology and inventories, the role of government, minority Americans, career choice, human nature and government, value decisions, working in college.

Dade County Public Schools. *Automotive History and Development of the Automobile:* Automotive Mechanics I: 9043:01. Miami: Author, 1973.

The automotive history and development of the automobile course is designed to familiarize the beginning student with basic concepts common to the automobile history and general information that is required for successful advancement in the automotive mechanics field. A course outline is provided and seven pages of post-tests are included in the appendix.

Flores, Thomas R.; and Perryman, Bruce C. *Mountain-Plains Handbook: The Design and Operation of a Residential Family Based Education Program.* Appendix. Supplement Nos. II and III to Volume 1. The Philosophy and Implementation: A Program Overview. Glasgow AFB: Mountain-Plains Education and Economic Development Program, Inc., 1975.

This document contains two of the three supplements which accompany chapter 1 of "Mountain-Plains Handbook: The Design and Operation of a Residential, Family Oriented Career Education Model." The first supplement contained in this document includes the following materials: articles of incorporation and bylaws; statement of program mission; statement of philosophy and approach; discussion of educational philosophy, responsibility, and approach; and a list of job descriptions for the executive office staff. The remaining supplement presents policies and procedures to cover the following concerns: function of the Mountain-Plains Board; finance; students; personnel; procurement; property control, and various miscellaneous items.

Grieser, Chris, Ed. *An Introduction to the Alaska Department of Education and Information on People, Government, History, Geography.* Juneau: Alaska State Department of Education, 1973.

The large number of requests for general information on Alaska has resulted in the compilation of this booklet. Alaska's school system is made up of district schools and State-operated schools. The 29 school districts (controlled by the local school boards) vary in size from 40 pupils with 4 teachers to 34,000 pupils with 1,500 teachers. Boarding high schools, boarding home programs, correspondence study, adult education, Bureau of Indian Affairs' role in education, institutions of higher learning, and teachers are discussed. Programs to meet the needs of the Alaskan student have been developed by Alaskan educators through curriculum materials based on settings and events familiar to these students. A historical sketch of Alaska and its present economy and government are included. The geographic division of Alaska and the distribution of Eskimos, American Indians, and Aleuts are described. Lists of facts and figures, historical milestons, information sources, and miscellaneous information conclude this booklet.

Grubb, W. Norton, Ed.; and Lazerson, Marvin, Ed. *American Education and Vocationalism: A Documentary History, 1970-1970.* New York: Teachers College Press, 1974.

The editors have chosen 21 selections which illustrate the development of industrial and trade education. Believing this aspect of vocationalism in education to be the primary concern of the vocational education movement during its most important phase, the years from

1900 to 1917. While vocationalism has changed since 1971, consolidation of themes and practices established during the earlier period. From this perspective, the editors provide a 56-page introduction to the volume in which they show how the documents chosen for inclusion reflect the turn-of-the-century approaches to vocational education and how they reveal the extent to which American education had accepted the ethics of the emerging corporate order. The document selected include papers, speeches, excerpts from longer works, and reports of committees from industry and/or education associations. Most of the publications are issued between 1878 and 1912. However, excerpts from the Russell Report (1938), the Commission on the Adjustment Education of Youth Report (1951), a paper by James B. Conant (1961), the Advisory Council on Vocational Education Report (1968), and an interview with Sidney P. Marland (1971) are included.

Hall, Clyde W. *Black Vocational Technical and Industrial Arts Education: Development and History*. Chicago: American Technical Society, 1973.

Since coverage of the history of industrial training of blacks in the United States is lacking, the author has compiled a single volume tracing this history from the plantation era. All phases are described early schools prior to 1865, private and public industrial institutions of higher education, private institutions of higher education offering industrial courses, private industrial secondary schools, and public secondary schools with industrial programs. Between 1839—60, manual labor schools were established in the North, schools isolated without a market for products. After the Civil War, the North favored classical education for blacks versus industrial training by the South. Between 1880 and 1890, Booker T. Washington advocated mostly vocational industrial education in trades. The Second Morrill Act of 1890 gave new life to land-grant college education for blacks. About 1900 secondary industrial schools were founded similar to the Hampton and Tuskegee Institutes. Passage of the Smith-Hughes Act of 1917 began a new era of industrial training for public courses for blacks, often limited to janitorial services, tailoring/upholstering, and woodworking. During the 1930's, institutions of higher learning began evaluating their industrial programs and creating industrial teacher programs.

Harlandale Independent School District. *American History (1865 to Present): Curriculum Guide*. San Antonio: By the Author, 1970.

The guide is arranged in vertical colums relating American history curriculum concepts to curriculm performance objectives, career concepts and career performance objectives, suggested teaching methods, and resource materials. The curriculum concepts covered in the guide coincide with those in the textbook presently used in teaching high school American History in the district. Space is provided for teachers' additions, deletions, notes, and criticisms, which will be useful when the guide is revised. Occupational information for 50 different occupations includes job duties, educational requirements, salary range, and employment opportunities. Space is provided for teachers' notes which will be useful when the guide is revised. Appendixes list teaching-learning activities; career development concepts; a seven-section list of European sovereigns and a six-section list of mayor dynastic houses of Europe; relevant historic names, places, and dates, and causes and effects statements. Eleven maps are included as well as organizations, periodicals, and delected references for career information. Audio-visual source information is also included.

Hartzler, F. E.; and Strait, Don. *Principles and Philosophy of Vocational Education.* Topeka: Kansas State Board for Vocational Education, 1967.

The principles and philosophy of vocational education are presented in this document in programmed instruction form for use by potential vocational education teachers in teacher preparation courses in colleges or universities. Orientation and basic terminology is included under headings of: (1) The Place of Vocational Education, (2) Vocational Education Defined, (3) Types of Vocational Education Students, (4) Vocational Areas and Services, (5) Vocational Instruction, (6) Coordination of Instruction and Work, (7) Occupational Concept and Vocational Education, and (8) Review of the Federal Acts. The material was developed by college instructors for individualized instruction and revised after field trial. The document is mimeographed.

Hodell, Louise. *A Case History in the Treatment of Academic Failure: Some Suggestions for Professionals in Work/Training Programs for the Disadvantaged.* New York: Mobilization for Youth, Inc., 1968.

A case history of a 16-year-old Puerto Rican male high school dropout is presented to illustrate the visual-perception difficulties resulting in illiteracy and academic failure. The boy had had a number of years of formal schooling without learning any of the basic skills. Neither the academic nor the work training programs at Mobilization for Youth were able to remedy the problem, in part because neither unit recognized the deep-seated perceptual difficulty. Lack of intercommunication between the two programs about the boy's learning failures also hampered a successful outcome. Finally, the vocational counselor terminated all plans for his further education and placed him in a full-time job which did not require literacy in any language. This case study points out the need for early identification of perceptual handicaps, with referrals to specialists for diagnosis and treatment. Although there are a few agencies which can provide the appropriate help for such dropouts, it is nevertheless important to identify this type of disadvantage so that special programs and treatment methods can be developed.

Hoffman, Judy. *Southwest History, Sahuarita High School Career Curriculum Project.* Sahuarita: By the author, 1972.

A course on Southwest History part of a high school career curriculum project, is outlined. Objectives for each part of the course are listed. Course titles include: Urban Problems in the Southwest, Mexican Americans in the Southwest, Southwest History, Americans in the Southwest, Indians in the Southwest, Urban Problems and History of Business and Industry. Several course titles have more than one learning package, each outlined in a similar format consisting of a problem statement, objectives, required reading materials and activities, and extra reading materials and activities. Packages include: The Mexican-American Today; Mexican-Americans Begin to be Heard; Cowboys; Medicine; Business in the Southwest; Ancient Indian Culture; Pueblo, Hopi, and Zuni; Red Power; Apache Group and Comanches; Mining in Arizona; Introduction to Urban Problems; Race Relations in the Cities; Planning; Crime; and Western Justice. The units on American Indians contain reproductions of literature, songs, symbols, and Indian picture writing.

Hoffman, Judy. *World History. Volumes I and II. Sahurita High School Career Curriculum Project.* Sahuarita: By the author, 1972.

Volumes I and II of a world history course, part of a high school career curriculum project, are outlined. Objectives are listed by course title. Course titles include: Early Communication—Languages and Writing; World History; Law and Order in Ancient Times; Early Transportation; Women in Ancient Times; Art and Literature in Ancient Times; History of Music, Art and Literature; History of Military and Wars; Science and Medicine; The Church in the Middle Ages and the Reformation; Women's Rights; The Enlightment; The Middle Ages and Renaissance; Business and Industry; Political Revolutionaries; Witchcraft; Early Agriculture; War Since 1945; and Political Revolution. Several course titles have more than one learning package for the different time periods covered. Each package is outlined in a similar format consisting of a problem statement, objectives, required reading materials and activities, and extra reading materials and activities.

Hole, James. *An Essay on the History and Management of Literary, Scientific, & Mechanics' Institutions.* London: Frank Cass & CO., Ltd., 1970.

The object of this essay is to establish the right of the working class to a popular culture. It was written in reaction to the great disparity which existed in England between the progress achieved in terms of material wealth and the low moral and intellectual state of those whose labor had produced it. Chapter I, History, delves into the origin of the Mechanics' Institutes. Chapter II, Objects and Methods of Adult Instruction, discusses and twofold character of an artisan's education.

Chapter III, Business Management, describes methods of improving the financial position of the Institutes. Finally, Chapter IV, Union of Institutes, discusses the importance and nature of the unions, both English and American.

Iowa State University of Science and Technology. *Models for Career Education in Iowa: A Philosophy for Career Education*. Des Moines: By the author, 1975.

An exemplary project, Models for Career Education in Iowa, was initiated to research, define, and describe an emerging concept of career education. The philosophy of career education places emphasis on self-identity development and the basic concept of world-of-work. The curriculum content of career education includes planned and spontaneous educational experiences oriented towards adding relevancy to the learning process. This calls for educational process that meets the needs of the learner and results in specific attention being given to career planning. The teacher's role is enhanced by expanding the educational environment to include cultural, social, economic, and occupational situations. The model for career development is also presented in diagram form, showing its basis in two concepts, self and world-of-work. These are shown interacting through the four phases for formal education: awareness, accommodation, exploration, and presentation-exploration, leading ultimately to occupational entry. A definition of terms relevant to the philosophy of career education is given.

Kelly, Thomas. *A History of Adult Education in Great Britain*. Liverpool: Liverpool University Press, 1970.

In a comprehensive study of a phase of the social and educational history of Great Britain, the author describes the development of formal adult education in its variety, and at the same time traces the influence of other less formal modes of instruction. Drawing from a wide range of sources he recounts in detail the various agencies of adult education public lectures, adult schools, mechanics' institutes, churches, working men's colleges, universities, extension courses, and the Workers' Educational Association, which have contributed to the development and perpetuation of adult education in Great Britain. The narrative extends from the Middle Ages to the 20th Century and embraces all these movements and institutions—the pulpit, the press, public libraries, cultural societies, reformation, renaissance, puritanism, science, and radical opposition broadcasting.

MSS Information Corp. *The Philosophy and Foundations of Vocational Education*. New York: By the author, 1973.

The introductory volume in a new series on vocational education, the book surveys recent literature on the philosophy and foundations of this relatively new field. Opening papers deal with the objectives of

vocational education departments in high schools, current standards of technological and industrial education, and models for comprehensive reorganization of the present system. Particular emphasis in placed on the question of the quality of vocational education programs as they now exist throughout the country. Contributors include: J. W. Harris, H. C. Kazanas, C. D. Lemons, M. L. Barlow, A. J. Pautler, L. A. Burkett, M. R. Larson, and B. D. Coe. The second section focuses on the foundations of industrial and distributive education, and includes papers dealing with the philosophies of Alfred Whitehead and John Dewey, the relationship of industrial education to occupational education and changing technologies, the responsibilities of industry to education, the use of census data in program implementation, and new vocational education designs in the United States and in Sweden. Contributors include: R. L. Koble, E. R. Glazener, M. H. Bensen, E. Kuntz, L. C. Crawford, D. Maley, J. R. Warmbrod, B. W. Brown, A. C. Wirth, and K. S. Hannson.

Lazerson, Marvin, Ed.; and Grubb, W. Norton, Ed. *American Education and VocationalisM: A Documentary History, 1870-1970.* New York: Teachers College Press, 1974.

Ohio State University. *Professional Teacher Education Module Series. Develop a Personal Philosophy Concerning Student Vocational Organizations, Module H-1 of Category H–Student Vocational Organization.* Columbus: By the author, 1977.

This first in a series of six learning modules on student vocational organizations is designed to help secondary and postsecondary vocational teachers develop a rationale for a vocational youth organization and a knowledge of how to use youth activities to motivate student learning. The terminal objective for the module is to develop and demonstrate a personal philosophy concerning student vocational organizations. Introductory sections relate the competency dealt with in this module to others in the program and list both the enabling objectives for the three learning experiences and the resources required. Materials in the learning experiences include required reading, self-check quizzes, model answers, rationale checklist, and the teacher performance assessment form for use in evaluation of the terminal objective. (The modules on student vocational organizations are part of a larger series of 100 performance-based teacher education (PBTE) self-contained learning packages for use in preservice or inservice training of teachers in all occupational areas. Each of the field-tested modules focuses on the development of one or more specific professional competencies identified through research as important to vocational teachers. Materials are designed for use by teachers, either on an individual or group basis, working under the direction of one or more resource persons/instructors.)

Perryman, Bruce C.; and Flores, Thomas R. *Mountain-Plains Handbook: The Design and Operation of a Residential Family Based Education Program.* Appendix. Supplement Nos. II and III to Volume I. The Philosophy and Implementation: A Program Overview. Glasgow AFB: Mountain-Plains Education and Economic Development Program, Inc., 1975.

Puntureri, Thomas. *History for Auto-Mechanics and Machine Trades Students. A Teacher's Guide.* New Brunswick: By the Author, 1974.

The guide for an American history curriculum is designed to give students insight into their field of study by including material on the development of the machine industry and related industries. It is divided into 18 basic units covering shop history and development, American industrialization, sociological development of man, American politics, communism, ecology, and American development and supremacy. Behavioral objectives for the 18 units are described in a 30-page section and serve to detail the content scope of the units. A section on teaching techniques suggests specific learning activities for each objective in the outline. Evaluation sheets are provided listing every performance in accomplishing the objectives. Progress report sheets for summarizing the evaluation sheets are also included.

Strain, Mary Pat; and Berninger, Roger. *Teaching Career Education in Social Studies Grades 10-12, World Culkture, Ancient and Medieval History, Modern History. Resource Manual No. 314.* Cincinnati: Cincinnati Public Schools, 1977.

Articles in Journals and Magazines

Benson, Peggy A. "Have We Lost Sight of the AD Philosophy?" *Nursing Outlook* 25, 8 (August 1977) pp. 511-513.

Presents goals, curricula, and attitudes in relation to associates degree (AD) programs indicate a gradual erosion of the premises on which this form of nursing education was based.

Brown, Herman D.; Grimes, Jay P. "Polarization in Vocational Philosophy," *Agricultural Education Magazine*, 43, 11, (May 1971) pp. 278-279.

Educational philosophies concerning the needs and directions of vocational education and vocational guidance are presented.

Brown, Herman D.; Grimes, Jay P. "Polarization in Vocational Philosophy," *Agriculture*, 12, 1 (March 1971) pp. 13-18.

Revisions in societal attitudes toward the concept of work are needed if vocational education and guidance are to be effective.

Craig, Robert Paul. "Philosophy of Education and Vocational Arts Education: An Interdisciplinary, Competency-Based Program," *Illinois Career Education Journal*, 33, 4 (Spring 1977) pp. 30-31.

Merits and criticisms are included in this description of a program at Wayne State University (in Detroit, Michigan), consisting of a competency based, interdisciplinary intern seminar which combines vocational arts education and educational philosophy into a single set of educational objectives.

Crawford, Allan. "A Short History of the Public Community Junior College Movement in the United States," *Paedagogica Historica*, 10, 1 (1970) 28-48.

The development and expansion of junior colleges in the United States. Special emphasis is given to the impact of war on the character of junior colleges.

DeSoto, Anthony Essex. "French Education — Philosophy and Fact," *Journal of Thought*, 6, 3 (July 1971) pp. 167-176.

A survey of the French and educational system and its similarities and differences to our own.

Dodd, J. E. "A Philosophy and Paradigm for a Career Education Program for Deaf Learners," *Journal of Career Education*, 3, 4 (Spring 1977) pp. 34-40.

The author discusses the philosophical rationale for career education via structured exposures in a school program and proposes a theoretical paradigm for such a program specifically for secondary deaf learners. Such a career education program model implemented in New York State used the four channels of career learning maturation described in this paper: the self, the conceptual, the informational, and the experiental.

Dryland, Ann: Gumbert, Edgar B. "Education in England: Selected Problems and Issues: A Recent History," *Paedagogica Historica*, 11, 1 (1971) pp. 18-30.

Describes the trend toward comprehensive education in England and its effect on educational opportunity and on democratization of the educational system.

Grimes, Jay P.; Brown, Herman D. "Polarization in Vocational Philosophy," *Agriculture Education Magazine*, 43, 11 (May 1971) pp. 278-279.

Grimes, Jay P.; Brown, Herman D. "Polarization in Vocational Philosophy," *Journal of the American Association of Teacher Educators in Agriculture*, 12, 1, (March 1971) pp. 13-18.

Gumbert, Edgar B. "Education in England: Selected Problems and Issues: A Recent History," *Paedagogica Historica*, 11, 1 (1971), pp. 18-30.

Hall, George L. "Behind the Bramble Bushes: A Mid-Century History of the Community College," *Community College Review*, 2, 3 (Fall, 1974) pp. 6-14.

A review of the rapid growth of community colleges with an analysis of current situations and recommendations for capitalizing on them.

Community colleges must coordinate their efforts with those of the high schools and universities; they may also make occupational education equal to academic education in the minds of citizens.

Hudson, David W. "Rehabilitation Philosophy and Middle-Class Values," *Journal of Rehabilitation*, 38, 5 (September/October 1972) pp. 34-35.

Analyzes the criticisms of linking middle-class values with the philosophy of rehabilitation.

Johnson, Ernest M. "Vocational Education in Washoe County: Philosophy and Program," *American Vocational Journal*, 45, 7 (October 1970) pp. 28-29.

Much has been said about educating the whole child, not enough about educating the whole adult.

Klinkhamer, George "Career Education as a Philosophy and a Practice: An Interview with George Klinkhamer," *Teaching Exceptional Children*, 5, 3 (Spring 1973) pp. 124-127.

Manfra, Jo Ann: and Others. "History Instruction in a Technical Setting," *Engineering Education*, 66, 4 (January 1976) pp. 319-322.

Reports on one technical institution which awards a B.S. in science degree when a student can display competencies in selected fields of engineering and a project which interrelates the problems of society with technology. This latter requirement, the interactive qualifying project, and the development of the program from the historian's point of view, is discussed.

Okenfuss, Max J. "Technical Training in Russia under Peter the Great," *History of Education Quarterly*, 13, 4 (Winter 1973) pp. 325-345.

This essay assesses the goals and accomplishments of technical education introduced by Peter the Great in the early 1700's in Russia. The extent of which technical and, more particularly mathematical instruction displaced religious, literacy instruction is the main focus.

Olsen, Fred A. "Philosophy, Technology, and Industrial Arts in an Era of Rapid Change," *Man/Society/Technology*, 33, 6 (March 1974) pp. 172-176.

Education is tumbling aimlessly into a future in which the greatest acts of immorality will be those in which technological change occurs without thorough examination of consequences. Objectives derived from humanism and existentialism direct industrial arts education toward an examination of the technology; specific applications emphasize "doing more with less."

Pegg, Ron. "Teaching History to Occupational Students," *Monday Morning*, 3, 5 (January 1969) pp. 27-28.

Ramsey, William L. "A Case History from One of the World's Largest Vo-Tech Schools," *American Vocational Journal*, 52, 4 (April 1977) pp. 38-40.

The Milwaukee Area Technical College (Wisconsin) operates a metropolitan vocational, technical, and adult education district, enrolling more than 73,000 students annually. This article describes how the extensive use of advisory committees in this district has aided the school's growth by helping it become sensitive to technological change and the needs of industry.

Rines, Alice R. "Associate Degree Education: History, Development, and Rationale," Nursing Outlook, 25, 8 (August 1977) pp. 496-501.

A review of the past 25 years that associate degree (AD) nursing education programs have existed reveals that AD education has been studied extensively and planned carefully since its inception and has had a considerable influence on all types of nursing preparation.

Robinault, Isabel P.; Weisinger, Marvin, "A Brief History of the ICD Research Utilization Laboratory," *Rehabilitation Counseling Bulletin*, 19, 2 (December 1975) pp. 426-431.

The ICD Research Utilization Laboratory received a five-year RSA grant in 1970 to act as a catalytic interface between research and practice for the rehabilitation of special client populations. The present thrust is to demonstrate how management practices can be improved in programs for vocationally vulnerable populations. This article describes that improvement effort.

Scott, Donald M. "The Social History of Education: Three Alternatives. An Essay Review," *History Education Quarterly*, 10, 2 (Summer, 1970), pp. 242-254.

Review of two books in which the authors seek to analyze ideas about education in relation to broader social issues.

Stallard, John J. "Vocational Education: Its Philosophy in Transition," *Tennessee Education*, 5, 1 (Spring 1975) pp. 20-23.

Weisinger, Marvin; and Robinault, Isabel P. "A Brief History of the ICD Research Utilization Laboratory," *Rehabilitation Counseling Bulletin*, 19, 2 (December 1975) pp. 426-431.

Wentura, David F. "There's More to Education Than History," *Journal Industrial Arts Education*, 28, 4 (March/April 1969), pp. 8-9.

Williams, Robert Bruce. "A Philosophical Reappraisal," *Journal Industrial Arts Education*, 28, 4 (March/April 1969) pp. 8-9.

Williams, Robert Bruce. "A Philosophical Reappraisal," *Journal Industrial Arts Education Special Issue*, 29, 4 (1970) pp. 13-14.

Describes a limited exploration of the traditional social responses for occupational worth as shown through a functional connection with the realities of the environment.

Wirth, Arthur G. "John Dewey's Philosophical Opposition to Smith-Hughes Type Vocational Education," *Educational Theory*, 22, 1 (Winter 1972) pp. 69-70.

Wirth, Arthur G. "Philosophical Issues in the Vocational-Liberal Studies Controversy (1900-1917): John Dewey vs. the Social Efficiency Philosophers," *Studies in Philosophy and Education*, 8, 3 (Winter 1974) pp. 169-182.

Traces the ideology and development of vocational education in this country, culminating in the Smith-Hughes Act of 1917.

Young, Alfred, "The Educational Philosophy of Booker T. Washington: A Perspective for Black Liberation," *Phylon*, 37, 3 (September 1976) pp. 224-235.

Examines three critical questions: Did Booker T. Washington reject liberal arts education? Was there any difference between Washington's perspective of education and that of his white contemporaries? Did Washington view industrial education as a moral and spiritual liberating force? Hypothesizes that Washington's philosophy reflected a black perspective of education and that it functioned as a liberating force.

Zurflieh, Thomas P. "The Evolution of a Technical Math Program: A Case History," *Technical Education News*, 35, 3 (March/April 1976) pp. 16-17, 24.

The article presents a case history of how a special series of technical mathematics courses was developed in an engineering technology program to meet student needs. It primarily focuses on role of mathematics in the engineering technology curriculum and on some of the problems related to it.

Reports

Barlow, Melvin L. *Implications From the History of Vocational Education*. Occasional Paper No. 15. Columbus: Ohio State University—Center for Vocational Education, 1976.

Today's vocational education program can be traced to basic principles established during the formative period of vocational education. Although the implementation of vocational education may change, basic principles continue to stand. Four points of view, randomly selected from the past 200 years, which seem to be present in vocational education programs today are the concepts of: (1) an educated worker, (2) "who" in vocational education, (3) what constitutes vocational education, and (4) professional association. The impact of the concept of the educated worker was reflected in the support of general/vocational education by labor unions during the 1800's, the elements of general/vocational instruction of the Smith-Hughes Act, and the broad educational goals stated by the National Society for the Promotion of Industrial Education (NSPIE) in 1907. Likewise, the concept of "who" in vocational education was inclusively pronounced in 1908: "Race, creed, color, sex, or national origin shall not debar anyone from vocational education." In regard to what constitutes vocational education, the principle of social concern and relationship of vocational education to social well-being has not changed. Moreover, the American Vocational Association is based upon the earlier foundations of the NSPIE and the National Society for Vocational Education.

Connecticut State Department of Education. *Public School Building Aid Program in Connecticut. A Brief History from 1945 to 1968.* Connecticut: By the author, 1968.

Legislative history in Connecticut is breifly reviewed with reference to the public school building aid program. Special actions taken by the 1965 legislature and the 1967 General Assembly are enumerated.

Crawford, Lucy C. *A Philosophy of Distributive Education, A Report of the First Step in the Research Project "A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education."* Blacksburg: Council for Distributive Teacher Education, 1967.

The first of four steps in a study to determine the learning experiences that should be included in a distributive teacher education program was to construct a philosophy of distributive education consistent with the philosophy of vocational education, the goals of secondary education, and the ideals of American democracy.

Fritz, Robert C. *Ceramic Technology – From Potter's Wheel to Nucleation, A Philosophy of Curriculum Analysis to Meet the Needs of the Space Age.* Columbus: Ohio State University, 1963.

The objectives of this study were to obtain and establish curricular components from technological research and to project the research into an outline of organized subject matter. The study is limited to an investigation of selected scientific and practical elements of ceramic technology that are recorded as resource references. The scope and diversity of the ceramics field are shown by its classification of products — (1) structural ceramics, (2) refractories, (3) whitewares, (4) vitreous enamels, (5) glass, (6) abrasives and ceramics tools, (7) cements, lime, and gypsum, (8) miscellaneous. The subject matter of the derived curricular outline is divided into the following sequential elements — (1) scientific research, (2) analysis of ceramic materials and classifications, (3) composition and preparation of ceramics materials, (4) ceramic processes, and (5) tests of ceramic materials and products which includes determining test procedures, applying equipment and instruments. Determining test controls, developing adaptable methods and devices, and designing and constructing specialized equipment. A sample curricular unit. "The Problem—Slip Casting" is included. This is a report of a doctoral research study, "Ceramic Technology—A Technological Research and Curriculum Analysis, With Implications for Industrial Education."

Elefant, William L., Ed. *Israel Education Abstracts; A Selected Bibliography of Current and Past Literature and Materials on the Philosophy, Policy and Practices of Education in Israel, Vol. 4, No. 2, 1969 Covering Period of April 1969-July 1969.* Israel: Bar-Ilan University, 1969.

Two sections comprise this selected bibliography on education in Israel. The first, "Current Items Section (April 1969—July 1969)," contains abstracts of documents dealing with new educational publications, foundations of education, the educational ladder, the teaching-learning process, educational frameworks, the administration of educational systems, the teaching of various subjects, and Diaspora Jewish education. The second section is a "Special Section on Modern Religious Education in Israel" and consists of an introduction and abstracts on historical highlights, issues and dilemmas — eternity and modernity, special problems, the teaching-learning process, and special frameworks. A publications and publishers index is included as well as an author index. A supplement contains a cross-reference table to related higher education abstracts. All titles appear in English and Hebrew; abstracts appear in English only.

Henderson County Public School. *Henderson County Vocational Education Curriculum Integration Project: History Report, July 1, 1970–June 30, 1971.* Frankfort: Kentucky State Department of Education, 1973.

The objective of the three-year project was to synthesize career education concepts from the literature and from practice into a continuous occupational information program for grades one through twelve. A variety of methods was used to implement the program: teacher-made lesson plans, "hands on" activities, and in-service workshops among others. The most effective method was the utilization of community resources. As a result of the program, career education has won acceptance within all phases of the school system and the community. Curriculum guides have been developed, resource centers established and student awareness of career opportunities has increased markedly. External evaluation (in "on-site" visitations) and internal evaluation (in the form of various instruments) have been continuous. It was possible to conclude that the Henderson County school system has changed from the traditional subject oriented curriculum to one more life centered. (Statistical data are included to support the conclusion.)

Hoffman, Allan M., and Hoffman Diane R. *A History of Vocational Education.* 1976.

The historical evolution of vocational education is discussed in an attempt to show that obvious comparisons can be drawn between the industrial education movement and debate of American educational history and the concepts of career education today. The document covers the period from the mid-1800's to the present. Major factors influencing the development of vocational education are highlighted: the establishment of trade schools in the 1800's, Industrial Revolution, the industrial education movement, the American Civil War, federal legislation (e.g. Morrill Land Grant Act), foreign educational influ-

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ence, the manual education movement, the formation of industrial arts associations, and various industrial shifts and societal changes. A bibliography is appended.

Grimes, Don M. *Adult Education and the Employability Training Philosophy*. Sacramento, California State Department of Education, 1972.

The question of how to educate the disadvantaged and with what subject matter is discussed. It is pointed out that two policy decisions by the California State Department of Human Resources Development indicate that this matter is of concern and relevant decisions have been made concerning it. General types of projects which have existed in the Work Incentive (WIN) Program are listed and analyzed according to advantages and disadvantages. These types include: prerequisite program, parallel, concurrent, or coupled programs. It is proposed that a program be initiated in which the student enters directly into vocational training, and the basic education skills deficiencies are identified by the vocational teacher and are then remedied. It is concluded that the use of successful programs must be undertaken if the problem of the disadvantaged is to be overcome.

McKinney, William Lynn; Westbury, Ian. *The Gary, Indian Public School Curriculum, 1940-1970: A Local History, Final Report*. Chicago: Chicago University, 1973.

Curriculum change and the dynamics of this change were explored by means of a case study of secondary social studies, science, and vocational education curriculums in Gary, Indiana, between 1940 and 1970. The time period is characterized by both unprecedented effort to produce change and slow change in schools. Talcott Parson's hierarchy of Levels; Charles Perrow's notion of goals, technology, and structure; and Kirst and Walker's assumption that curriculum decision-making was "political" were used to conceptualize and stabilize the data as curriculum development was traced through the time period. The study findings revealed that change occurred in small ways in individual classrooms—by policy decision and by organizational "drift." Change and financial resources were found to be related. School system resources were used for "maintenance" of the system; few resources were left for innovation. The advent of federal funding (NDEA, Vocational Education Act of 1963) brought additional funds, which permitted the curriculum change that the Gary school system had failed to bring about with its own limited resources. An extensive bibliography is included.

Morris, Van Cleve. *Models for Career Education in Iowa: The Way We Work: Some Notes on the Philosophical Base of Career Education*. Des Moines: Iowa State Department of Public Instruction, 1975.

The document is part of a series that reports the findings and accomplishments of the Models for Career Education in Iowa project which was initiated to research, define, and describe the emerging concept of career education. The document focuses on a discussion of some of the philosophical bases of career education and the concepts of American interpretation of the Puritan work ethic, and existentialism, and their implications for educators helping young people with career decision making.

Porter, G. William, Ed.; and Others. *Philosophy, Program Development and Implementation.* Proceedings and Evaluation of the Annual National Conference for State Personnel Development Coordinators (th, Arlington, Texas, January 26-28, 1974). Career and Vocational Education Professional Development Report No. 19.

The basic text (or, in some cases, an outline of the text) of the presentations taped at the conference for vocational education personnel coordinators constitute the major portion of this report. Titles are (1) A Philosophy for Personnel Development in Vocational Education, (2) Performance-Based Teacher Education for Vocational Teachers, (3) A Paradigm for State Personnel Development in Vocational Education, (4) Arizona State Personnel Development in Vocational Education, (4) Arizona State Personnel Development System, (6) Texas Exemplary Regional Project, (7) Region VIII Staff Development Workshop to Improve the Administration of Vocational Education, (8) Minnesota In-Service Program for Vocational Teacher Educators, and (9) Georgia State Professional Development System. Small group summaries are also included along with a conference summary, conference evaluation, a copy of the agenda, list of participants (77) with addresses—and the conference evaluation form.

Project GROW. *Project GROW; Green River Opportunities for Work: History Report.* Frankfort: Kentucky State Department, 1974.

A major goal of Project Green River Opportunities for Work (Project GROW) was to develop materials that could be used by teachers in regional schools to help them implement an articulated, developmental career education program from kindergarten through postsecondary levels. The document consists of a regional history report and description of the project and 11 individual district history reports. Each report discusses the purposes of the project and describes general design, operational base, planned activities, curriculum changes, community involvement, and an assessment. The regional history report offers an overview of the project. A regional career education staff coordinated the program, but each district planned and executed its own program according to individual needs. Major regional activities included the planning and implementing of career education inservice workshops, a massive interest and ability testing program, distribution of career education materials, and a graduate followup study. The development of an articulated developmental career education concept grid for kindergarten through postsecondary levels, and the creation of a matrix and 100 lesson plans were achieved in the final year of the project.

St. Germain, Amos. *American Studies and American History*. Savannah: Georgia Association of Historians, 1976.

The value of a college-level interdiscplinary American studies curriculum is examined in this paper. American studies offers the student a chance to fashion a desirable course of study for himself from various disciplines. It can produce the goal of the best traditional liberal-arts curriculum — the educated imagination. In a time when academic specialization poses a bewildering number of options, the American studies courses are some of the best tools for providing a general knowledge of culture in the curriculum. The programs will also allow students to build into their course of studies the skills in technology, business, and science demanded by today's job market. It presents a means of modifying and adopting traditional subjects to a more career-centered curriculum. The programs need not cost much since they require only interested administrators and teachers who are willing to attempt an interdisciplinary approach to education.

Unpublished Materials

Broudy, Harry S. "Problems and Prospects in Vocational Education."

The contentions evident in recent discussions of vocational education are critically examined. Programs at the secondary level are questioned because of the time and concentrated effort required for general education and the need for a concentration of resources and staff to provide the high level of training required by modern industry. The post-secondary school is in a better position to do this. General education must lay the groundwork for all highgrade applications of knowledge by providing reliable replication of certain symbolic skills and key facts, reliable habits of acquiring and using knowledge interpretively, and a mass of learnings that will be used associatively to enrich lives and give them individuality to safely and productivly utilize the benefits of a large-scale machine industry. Not only a high order of vocational skill is needed, but also a higher order of citizenship and personal development. Automation can provide that added productivity to maintain and exploit a technologically sophisticated culture for further benefits. Vocational education has to become formal and more consciously and extensively based on theory. Vocational statesmen should sit on the boards of research and development in every major firm and governmental agency to shape the educational strategy. There should not be a lag of 15 to 20 years between the manpower needs of the nation and educational facilities for meeting them, but a lead time of a decade. Rebuttals by Stephenie G. Edgerton, James E. Gallagher, and Jacob Stern follow the paper.

Evans, Rupert N.; and Othe[illegible]. "Education for Employment: The Background and Potential of the 1968 Vocational Education Amendments. Policy Papers in Human Resources and Industrial Relations No. 14."

The Vocational Education Amendments of 1968 have the potential for a major breakthrough in all education, vocational and otherwise. The Vocational Education Act of 1963 established broadened objectives and enlarged appropriations but did not tie funds to performance. Lacking that tie, no effective leverage existed to entice federal, state, and local vocational educators from the orientation of 1917 to that needed by an advanced technical society. The 1968 act did more than relate appropriations to objectives. It expanded the definition of vocational education and removed some of the narrowing structures which had sharply differentiated vocational from academic education. It insisted upon comprehensive state planning and sought to strengthen the federal leadership role through national and state advisory councils with independent staffs, budgets and authority. Though there are pitfalls in the act's interpretation and administration, it represents a major contribution toward preparing people for employment and substantial leverage toward achieving new objectives. A discussion of the 1968 report of the advisory council on vocational education serves as a basis for evaluating the potential of the various thrusts of the 1968 amendments.

Henning, Gabrielle, Sister, "A History of Changing Patterns of Objectives in Catholic Higher Education for Women in Michigan," (Ph.D. dissertation, Michigan State University).

The purpose of this research was to trace the history of changing patterns of objectives in six Catholic women's college in Michigan. A number of hypotheses were generated and evaluated. All the hypotheses, college for women in Michigan have, from their foundations, included the objective of training for leadership, could not be supported by the available evidence. It was observed that the six college have followed clearly observable "patterns" or "similarities of design" in objectives: commitment to a Catholic philosophy of education, an intellectual objective, a moral objective, a service objective, a professional objective, and an institution's relationship and responsibility to the community and to humanity objective appeared in all statements of objectives consistently in all the colleges.

Keller, Louise Jean. "Principles for Vocational Education—Validation of Statements of Beliefs Selected From the Literature and Research," Ph.D. dissertation, Montana State University, 1968.

This study was undertaken to determine a set of belief statements that, when validated, would serve as principles for vocational education. The instrument selected was a modified version of the Q-sort technique, referred to as a card-sort. The final instrument included 91 statements of belief selected from the literature, and was validated through the responses of state supervisors from the United States office of Education's Region VIII. The responses were analyzed as to nine categories of statements: (1) curriculum, (2) definitions, (3) evaluation, (4) guidance, (5) leadership, (6) organization and administration, (7) people served, (8) teacher education, and (9) beliefs on which a specific reference group can agree. Examples of these include: (1) curriculum content is based on occupational analyses, (2) Programs are built around people, and (3) Follow-up studies of graduates and drop-outs are evaluative tools for program effectiveness.

Pirtle, Wayne George. "A History of Adult Education in Germany (1800-1933)." Ph.D. dissertation, California University, 1966.

German adult education before 1933 stressed group experience in the family, clan, and culture rather than knowledge and the individual. Outside trends, especially in England, Austria, Denmark, and the United States, repeatedly influenced the German movement. While lecture institutes, university extension, and other activities were important, the folk colleges were the greatest single force in German adult education. Grundvig's emphasis on "interview" adult education had a great impact on adult educators between 1890's and 1933. A perennial goal was the healing of social divisions caused by regional differences, traditional class distinctions, and an elitist educational system based on classical scholarship. Major weaknesses in German adult education were poor communication between educators and participants, frequent failure to appeal to the working classes, lack of funds and respectability, lack of adequate facilities and cohesive organization, and inadequately trained personnel. Programs tended to be either "Old Direction (formalistic), "New Direction" (broad and democratic), "neutral (without controversial subjects), or linked with religious or political beliefs.

Shotwell, Thomas K. "Technology and Educational Reform in Early America," Ph.D. dissertation, Louisiana State University, 1965.

The purpose of the study was to survey the sociological and philosophical origins of career education in agricultural and mechanical sciences and relate them to the founding of the first American institutions which emphasized scientific technology. In general, the study was confined to the period beginning with the close of the war of independence and ending about 1835 although consideration of philosophical currents was extended. Characteristics common to the founding of the first six schools and their difficulties and achievements are discussed. The developments of chemistry, botany, and geology in relation to agricultural education practices are given. It was concluded that the rationalism of the late 18th Century, the advances in agricultural and mechanical technology, and the new democratic view of the role of the masses in society combined to create a climate in which a strong interest in applied science could replace much of the traditional curriculum. Although distant, a significant relationship was established between the early schools and the land grant and sbusequent acts related to vocational education in general.

Stuart, Chipman Gray. "Industrial Arts and Vocational Education: Their History and Present Position in Texas," Ph.D. dissertation, Texas University, 1968.

The purpose of this study was to present the growth of industrial arts and vocational education in Texas. The growth of industrial arts from the sloyd system, through manual training, to the present position in included. The study was hampered somewhat by the fact that statistics and information in industrial arts education in Texas are very much lacking. It was found that State funds have been appropriated for industtrial arts since before 1917, and that curriculum studies conducted from 1958 to 1960 set the present pace for industrial arts programs in Texas. Today, approximately 45 different courses are offered 160,000 students throughout the State. A specific problem is that most courses are specialized in nature, and unless this trend reverses, industrial arts cannot justify its claim of being a portion of general education. A major problem found in vocational education was that it has aspects of a too rigid, too narrow, and too stereotyped curriculum.

Yearbooks

Barlow, Melvin L., Ed. "The Philosophy for Quality Vocational Education Programs," *Fourth Yearbook of the American Vocational Association*. Washington, D.C.: American Vocational Association, 1974.

The yearbook attempts to show the relationship between the philosophical concepts and the practical demands of program organization and operation in vocational education. Experienced educators present their differing philosophic orientations on a variety of topics. Melvin L. Barlow views the role of vocational education in an industrial society from a historical perspective and presents the yearbook theme. "Organization of Vocational Education in the Educational System," by Robert Miller, examines the place and function of vocational education in the total educational system. Vocational education administration and supervision are explored by Merle E. Strong. Gordon I. Swanson focuses on the development of vocational education policy. Instruction principles (David Allen), the status of career guidance (Henry Borow), and learner characteristics (Helen A. Loftis and Elizabeth M. Ray) are the concerns of individual chapters. Job placement and follow-up (Wesley P. Smith) and the place of community involvement (J. W. Weatherford and Jimmy G. Koeinger) are related topics for consideration. Garth L. Mangum presents the economics of vocational education in a social context for cost-benefit

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analysis. Barlow reviews some of vocational education in a social context for cost-benefit analysis. Barlow reviews some of the volume's persistent issues in the epilogue.

Law, Gordon F., Ed. "Contemporary Concepts in Vocational Education," *The First Yearbook*. Washington, D.C.: American Vocational Association, 1971.

Prepared to serve as a resource manual for educators as well as informative reading for the general public, this first yearbook explores a wide range of views, topics, and trends of current importance in the field of vocational education. The authors were particularly concerned with the philosophy of vocational education as expressed in the declaration of purpose of the 1968 amendments. Chapters include: (1) philosophical aspects of vocational education, (2) equipping all persons for a productive life, (3) people, jobs and the vocational education curriculum, (4) comprehensive research and planning and vocational education, (5) schools, programs and systems: the delivery of vocational education, (6) a new perspective for education, (7) cooperative education and other forms of school-community improvement, (8) the professional development of vocational educators, (9) the economic role of vocational education, and (10) evaluation, accreditation and accountability in education.

A Topic Analysis for Vocational Teacher Education

STANDARD CHARACTERISTICS OF VOCATIONAL EDUCATION

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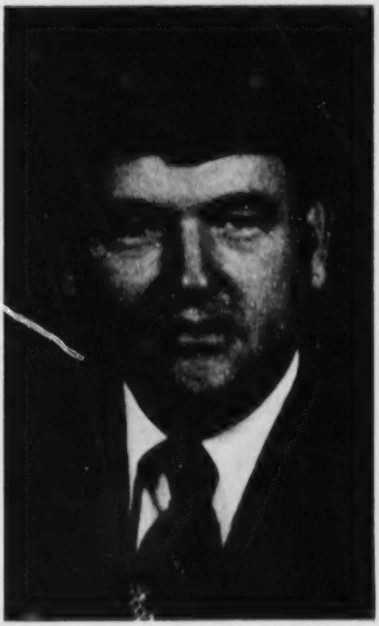

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STANDARD CHARACTERISTICS OF VOCATIONAL EDUCATION

GENERAL BACKGROUND

I am sure that I do not have to remind you that being a Teacher Educator is almost the 8th wonder of the world. We spend our time working with administrators, certification, teaching courses, accreditation, selling other faculty members on vocational education, supervising student teachers, working for the State Department, etc.

But truly, it is a very enjoyable occupation and we love every moment of it or we wouldn't be doing it.

Teacher Educators fall into four categories:

If teacher educators don't know how to be good teacher educators, and don't know that they don't know how to be good teacher educators — they are ignorant. This is a challenge.

If teacher educators don't know how to be good teacher educators and know that they don't know how to be good teacher educators — they are pliable and can be shaped up.

If teacher educators know how to be good teacher educators, and don't know that they know how to be good teacher educators — they are asleep and need to be awakened.

If teacher educators know how to be good teacher educators, and know that they know how to be good teacher educators—they are wise.

The goal of this conference should be to develop wiser teacher educators so that we can truly be 8th wonders of the world and meet the needs of all of our constituents.

I would like to think of the Standard Characteristics of Vocational Education as indicated in the booklet, AN INSTRUCTIONAL SYSTEMS DESIGN FOR VOCATIONAL EDUCATION by Dr. Byrl R. Shoemaker, as links in a chain.

If each link in the chain is strong, we will have a good strong chain to use in pulling the load that we need to pull to make vocational education in Ohio very strong.

The first link in our chain is PHILOSOPHICAL AND EDUCATION FOUNDATION.

Initially, a program of vocational education must be founded upon a sound philosophical and educational base. Without such a base upon which to build, the program will have neither stability nor direction.

The program philosophy should reflect the fundamental purpose of vocational education and its place in the social, economic, and educational environments. Specifically, the philosophy should address two fundamental questions:

a. Why vocational education in lieu of or in conjunction with other education concepts?
b. How does vocational education meet current projected social, economic, and individual needs?

The educational program should be a core curriculum aimed at preparing individuals for employment. Such a vocational education base must embrace the principles of learning which emphasize the effective use and application of knowledge taught.

The philosophical and educational foundation for vocational education can be strengthened by a state leadership point of view. However, such a foundation must be subscribed to or adjusted at the local level if it is to be effective.

Subsequent to the formulating of a philosophical and education base, it is necessary to structure and implement an effective delivery system for vocational education. Such a delivery system must possess a set of standard characteristics if the state educational agency (SEA) and the local educational agencies (LEA) are to fulfill their respective leadership roles in program development, implementation, and administration.

The second link in our chain is CONSTITUENCY SUPPORT.

Although treated as a separate entity, building program constituency is dependent upon and closely allied with program philosophy, quality, and outcomes.

Constituency support does not come about automatically, but must be cultivated and nurtured at all program levels if vocational education is to prosper and grow.

The importance of constituency support was underlined recently when a local JVS reported that program size had increased greatly as the result of the dismissal and replacement of a recruiter who was turning students away from the JVS.

Vocational education is a service effort for both the individual and business and industry. Close relationships must be developed and maintained with persons who need vocational education and agencies who employ its graduates in order to assure currency and relevance. Vocational education functions within and as a part of the social and economic environment. Community involvement and input must be sought and taken into account if public support is to continue. There must be laws and regulations and financial support for vocational education if it is to reach its potential in services to our society. Finally, vocational education must be packaged in such a manner that it appeals to the needs and interests of a significant segment of the student clientele.

Ultimately, the goal of building a constituency is to attain the degree of commitment and support for vocational education that will assure its prominence and permanence on the educational scene.

The third link in our chain is PROGRAM PLANNING.

It is the responsibility of the SEA to establish an adequate program of vocational education for all people in all parts of the state. In order to fulfill such a responsibility, careful and detailed planning on a statewide basis is essential.

Once developed, the state plan for vocational education must be translated into LEA level plans of action. SEA and LEA plans of action will have to be compatible.

The fourth link in our chain is PROGRAM DEVELOPMENT AND EXPANSION.

Like most social movements supported and financed via local, state, and federal taxes, vocational education must compete for the limited tax dollar. Based on the assumption that vocational education needs exceed available revenue, it is essential that optimal use be made of available dollars. This necessitates a carefully derived pattern for program development and expansion.

The fifth link in our chain is PROGRAM STANDARDS.

In order to provide the quality of services needed by students and employers and to assure an effective use of fiscal and educational resources throughout the state, it is essential that vocational education programs be built around and maintained upon a set of appropriate program standards. These standards should address the "four factors of production" of vocational education: curriculum, facilities and equipment, instructional staff, and students.

Such standards must be accompanied by appropriate mechanisms for monitoring and enforcing them.

The sixth link in our chain is PERSONNEL DEVELOPMENT.

Regardless of the soundness of the program philosophy, the comprehensiveness of goals and objectives, or the appropriateness of program standards, the degree to which vocational education is effective is largely dependent upon the availability of quality state and local leadership and occupationally competent instructional personnel. An adequate supply of competent personnel is too important to leave to chance.

The seventh link in our chain is PROGRAM EVALUATION.

Program review and evaluation are key ingredients to any program's success. Program review in vocational education should embrace two dimensions: process and product evaluation.

Process evaluation is formative in nature, and its primary purpose should be the improvement, development, and expansion of vocational education. This evaluative component assures the effectiveness of the program variables of curriculum, facilities and equipment, instructional staff, and students.

The degree of success and support enjoyed by vocational education will be largely dependent upon the number of students who obtain fulltime employment and who perform satisfactorily on the job. Student placement and follow-up is essentially a product or summative evaluation component and is the accountability measure for vocational education.

The eighth link — SUMMARY.

Standard characteristics of vocational education must be an outgrowth of a philosophical foundation. Once the standard characteristics have been determined, operational criteria must be established for each standard characteristic. The establishing of such criteria must once again evolve from and relate to the program philosophy.

The ninth link is YOU!!

If we have a good strong chain we can demand the respect to be called 8th wonders of the world. JUST REMEMBER:

God created man with two ends.
One to think with and one to sit on.
Success as Teacher Educators
Depends upon which end you use.
Heads you win, tails you lose.

PURPOSE OF COURSE:

To acquaint teachers, supervisors and administrators with the standard characteristics, purposes, and goals of vocational education in the high schools of Ohio.

INSTRUCTIONAL OBJECTIVES:

1. To acquaint students with a philosophical and education base for vocational education.
2. To acquaint students with the appropriate constituency needed at all levels of vocational education for an effective program.
3. To acquaint students with a carefully developed and documented plan for vocational education based upon specific goals and measurable program objectives which facilitate and support subsequent planning and programming efforts.
4. To acquaint students with a comprehensive pattern for program development and expansion, supported by legislation and fiscal commitments at the state and local levels, taking into account occupational needs, student base, and education resources available or required.
5. To acquaint students with the "four factors of production" that contribute to and enhance the quality of instruction—curriculum, facilities and equipment, instructional staff, and students.

6. To acquaint students with the well defined and operative program of professional personnel development which assures an adequate supply of leadership and occupationally competent instructional personnel inbued with both the technical and pedagogical skills and understandings essential to program development and operation.
7. To acquaint students with a mechanism which provides for periodic formative and summative program evaluation.

TOPICAL OUTLINE

(Based on 40 Class Hours):

I. Philosophical and Educational Foundation (3-5 class hours)
   A. Prosser's Theories of Vocational Education
      1. Environmental habits
      2. Process habits
      3. Thinking habits; specific habits
      4. Special aptitudes and interests—individual
      5. Special aptitudes and interests—grouped
      6. Repetitive training
      7. Experienced instructor
      8. Minimum employment standards
      9. Training for market requirements
      10. Theory of job training
      11. Origin of content
      12. Occupational content specific
      13. The service theory
      14. Group characteristics
      15. Elastic administration
      16. Irreducible cost
   B. Major Vocational Education Acts
      1. Smith-Hughes Act
      2. Vocational Education Act of 1963
      3. Amendments of 1968

II. Constituency Support
   A. Administrative Staff
   B. Instructional Staff
   C. Student Organizations
      1. Purpose of student organizations
      2. Scope of student organizations
   D. Advisory Committees
      1. Purpose of advisory committees
      2. Proper utilization of advisory committees

E. School and Community Relations
    1. Parents and schools
    2. Communications

III Program Planning (7-9 class hours)
  A. State Plans for Vocational Education
  B. LEAP—Local Education Area Planning
      1. Planning according to the objectives in the State Plan
      2. Development of one-year and five-year projections for each objective in the State Plan
      3. Utilize computer printouts as the vehicle to provide an annual up-date of the plan
      4. Utilize local manpower data as a basis for planning
      5. Loose leaf planning forms for internal use by school district

IV. Program Development (3-5 class hours)
  A. Funding Sources
    1. Federal
    2. State
        a. Basic state support program
        b. Categorical program funding
        c. Supplemental program payments
        d. Joint vocational school districts
    3. Local
  B. Professionalism
    1. Local legislative support
    2. State legislative support
    3. Federal legislative support

V. Program Standards (4-6 class hours)
  A. Range of Programs
    1. Agriculture Service
    2. Business and Office Educational Service
    3. Career Development Service
    4. Distributive Education Service
    5. Home Economics Service
        a. Job training
        b. Consumer and homemaking
        c. Consumer education
    6. Manpower Training Service
    7. Special Needs Service
    8. Trade and Industrial Education
    9. Veterans Training and Education Service

B. Conditions necessary for operation of all vocational programs:
  1. Approval on basis of program rather than subject approaches.
  2. Laboratory shop spaces, related technical instruction spaces, and equipment must be provided by local board.
  3. Programs will be approved for a minimum of a school year.
  4. Students enrolled must be those who need, have interest and will benefit.
  5. Not more than one unit will be approved for each teacher.

VI. Personnel Development (4-6 class hours)
  A. Teacher Education
  B. Pre-Service Training
  C. Certification Requirements
    1. Adult Education
    2. Agriculture
    3. Business and Office
    4. Distributive Education
    5. Home Economics
    6. Technical Education
    7. Trade and Industrial Education
  D. In-Service Training
  E. The Heart of Instructions Series
    1. It Starts With the Teacher
    2. Psychology of Learning
    3. Understanding the Adolescent Learner
    4. Selection and Use of Instructional Resources
    5. Selection and Use of Teaching Strategies
    6. Effective Lesson Plans and Assignments
    7. Teaching Communication Skills
    8. Relationship of Math and Science Principles to Vocational Curricula
    10. Classroom and Laboratory Management
    11. Techniques of School and Classroom Discipline
    12. Evaluation of Learning
    13. Leadership for Improved Learning

VII. Program Evaluation (4-6 class hours)
  A. PRIDE—Program for Improvement, Development and Expansion in Vocational Education, Career Education and Guidance
    1. Purpose
    2. Objectives

3. Components of Review
4. Operational Phases
    a. Implementation and Preparation
    b. Self-Review
    c. State team review
    d. Reports
    e. Follow-up

B. Achievement Testing Program

VIII. Evaluation (Final Exam) (3-5 class hours)
  A. Course Evaluation Strategies
    1. Formative
    2. Summative

SELECTED INSTRUCTIONAL STRATEGIES

1. Minimum amount of lecturing
2. Speakers on the following suggested topics:
    a. LEAP
    b. PRIDE
    c. Professionalism
    d. Supervision
    e. Funding
    f. State Advisory Council
    g. Administration
    h. Certification
3. Tour a Joint Vocational School
   Students will write a comprehensive report of the tour
4. Selected films
5. Conduct a mock Advisory Council meeting
6. Have a demonstration by a local student organization Parliamentary Procedures Team
7. Have the students develop a 12-month school/community public relations calendar
8. Have the students select one vocational program and develop the outline for a good in-service training program for teachers in that program

10. The final review would consist of two parts:
    a. Solution to two or three case studies
    b. Develop a policy statement concerning the major standard characteristics of vocational education. Start each statement with "I believe."

SUGGESTED COURSE GRADE:

20% - J.V.S. Tour Report
20% - Public Relations Calendar
20% - In-Service Program
20% - Major Acts Paper
20% - Final Review

CASE STUDIES AND DISCUSSION QUESTIONS

The following case studies and discussion questions can be used as a part of the final review or during the course.

A. A vocational program has the problem of dropping enrollment. The potential of job placement is still very high. Discuss possible causes for this problem — administrative, recruitment, teacher, parental, etc.

B. Your program will be reviewed by PRIDE next year. What can you do to make it look good? Do you want to make it look good?

C. Your students rebel at being forced into the "youth activities." Discuss methods of motivating students to be a part of a youth group organization.

D. Your school (comprehensive high school) wants to start an OWE program. What should you, as a principal, do?

E. Your VPED needs more operating money. What can you, as a vocational teacher, do to help the campaign?

F. You are a coordinator in a cooperative vocational program in a comprehensive high school. You overhear a conversation between 2 teachers (obviously for your benefit). Their remarks indicate that you have students for only 1½ - 2 hours of class instruction daily. In the afternoon you are free of in-school responsibilities. State your reaction explaining the purpose of cooperative time and what is involved in being an effective coordinator.

BIBLIOGRAPHY

Burt, Samuel M., *Industry and Vocational-Technical Education.* New York, N.Y.: McGraw-Hill, 1967.

Castetter, William B., *The Personnel Function in Educational Administration.* New York, N.Y.: 1971.

Center for Vocational Education, *Resource Person Guide to Using Performance Based Teacher Education Materials*, 1978.

Conference on Vocational Education, *Report of THIS WE BELIEVE.* Region V, USOE, Conference on Vocational Education, 1976.

Division of Vocational Education, *An Instructional System Design for Vocational Education*, Columbus, State Department of Education, 1976.

Division of Vocational Education, *Heart of Instruction*, State Department of Education, Columbus, Ohio, 1977.

Division of Vocational Education, *Improving Supervision in Vocational Education.* Columbus, Ohio: State Department of Education, 1978.

Division of Vocational Education, *Local Education Agency Planning*, Columbus, Ohio: State Department of Education.

Division of Vocational Education, *Ohio Five-Year State Plan for Vocational Education*. State Department of Education, Columbus, Ohio, 1977.

Division of Vocational Education, *Program Review, Improvement, Development and Expansion.* Columbus, Ohio: State Department of Education.

Evans, Rupert N. *Foundations of Vocational Education.* Columbus, Ohio: State Department of Education.

Hawkins, Layton S., Prosser, Charles A. and Wright, John C. *Development of Vocational Education.* Chicago, Illinois: American Technical Society, 1956.

Instructional Materials Laboratory, *Using the Results of the Achievement Test*. Ohio State Department of Education, 1977.

Malinski, Joseph F., *Planning Techniques for Local Programs of Vocational Education*. Columbus, Ohio: The Center for Vocational and Technical Education, 1971.

National Institute — *Student Organizations in Vocational Education, Motivation Through Vocational Student Organizations*. 1977.

Roberts, Roy W. *Vocational and Practical Arts Education, History, Development and Principles*. New York, New York: Harper and Row, 1971.

State Department of Education, *The Ohio Law for State Support of Public Schools*, State of Ohio Department of Education, 1978.

United States Department of Health, Education and Welfare, *Administration of Vocational Education – Rules and Regulations. Vocational Education Bulletin, No. 1 Revised 1966. United States Government Printing Office, 1966.*

United States Department of Health, Education and Welfare. Organization and Operation of a Local Program of Vocational Education. Washington, D.C.: United States Government Printing Office, 1968.

Wentling, Tim L.; Lawson, Tom E. *Evaluating Occupational Education and Training Programs*. Boston: Allyn and Bacon, Inc. 1975.

A Topic Analysis For Vocational Teacher Education

PRINCIPLES OF COURSE OF STUDY CONSTRUCTION

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Acknowledgements

This paper is presented as a contribution to the effort of up-dating vocational teacher educators throughout the state on current issues as they affect the common-core curriculum of teacher education.

The information contained on the following pages is, to a large extent, material which has been utilized by teacher educators and other state staff personnel who have been responsible for presenting the course "Course of Study Construction."

The intent of the writers was not to rediscover the wheel; rather, the approach taken was to combine existing and original materials in an attempt to develop a course syllabus with common-core materials which could be applied universally in all of the vocational service areas.

Acknowledgement is therefore extended to those persons who assisted in the development of these materials.

Preface

The major portion of this course syllabus has been organized around ten different instruction sheets. Each instruction sheet provides the teacher educator with pertinent information relative to each of the major sections or parts of a comprehensive course of study.

It is suggested that the teacher educator require his/her students to develop a course of study document which, when completed, contains each of the ten sections presented in this syllabus. In this way, commonality as to what constitutes a course of study can be accomplished.

This is not to say, however, that the teacher educator cannot supplement the information sheets to provide a more indepth coverage of a particular section or modify the present format to meet the unique needs of the specific vocational service area.

Rather, the design was to present each section separately with an instruction sheet to serve as a guide to assure that a comprehensive document would be developed as a result of the course.

The intent of the writers was to assemble a course syllabus that would be universally applicable and acceptable to all service areas. Further, it was felt that the material could be utilized by the teacher educator when teaching either pre-service or in-service classes, with minor modifications.

Finally, the writers believe that the course syllabus is equally applicable in developing courses of study for disadvantaged, handicapped and cooperative-type programs. Adaptations, however, will have to be made primarily in instructional strategies and the course content section to accomodate unique characteristics of these programs.

COURSE OF STUDY CONSTRUCTION

INTRODUCTION

The primary goal of vocational education has been, and continues to be, the preparation of individuals for meaningful employment.

If vocational education is to achieve its unique goal of employability within public education, it must continually stress the importance of instructional organization and planning which is reflected vividly in a well-developed course of study.

This road map of instruction, which is the responsibility of each vocational teacher, must be based upon sound principles of learning and contain both the laboratory tasks and the related information necessary to enable persons to enter and make progress in a socially useful occupation. In addition, the course content must be presented in an organized manner utilizing a delivery system which optimizes the efficiency and effectiveness of the teaching/learning process.

A functional course of study provides the teacher with a detailed plan of the instructional processes to be carried on in the learning situation. It is important to realize that it is a planning document rather than a teaching device which, when properly used, results in better instruction and a more highly satisfied and employable student.

Teachers, if they are to effectively use a course of study, must be convinced of its potential value. It is the opinion of the writers that a concerted effort be made during the certification program and/or collegiate course to continually reinforce the importance and need for a program course of study.

The secondary school or adult teacher who attempts to teach entirely on memory, skimpy outlines or day-to-day planning, cannot set up an education program that is conducive to good learning. Effective and long lasting learning results only when there is a logical presentation of content and learning activities that have been analyzed and selected on the basis of their functional and ease of understanding. The development of a course of study makes it possible for the teacher to analyze each student experience and activity, to reject inappropriate material and to formulate a clear picture of what is to be taught.

As a planning document, the course of study can also serve as a ledger for periodic changes which must be made in the instructional program. Without a written plan to record these changes, similar mistakes in instruction will probably occur frequently.

Perhaps one of the greatest benefits which can result from an organized plan of instruction is the correlation or tying-in of the laboratory activities with related classroom instruction. Vocational educators have long recognized the fact that practical application of science, mathematics and other related topics is more meaningful to students if they can see practical applications of theoretical principles.

The course of study will provide evidence that planning has taken place and provide assurance that something is actually taught. It has been said that 50 percent of good teaching is good planning. If the teacher is teaching something, it can be identified and organized.

It is the direct responsibility of the teacher to prepare a course of study which is tailor-made for the specific school system where he/she is employed. This is not to say, however, that the teacher acts alone during the planning stages. Rather, assistance should be given to the teacher by teacher educators, local advisory personnel and school administrators in order that a viable document can be developed.

The purpose of this paper is to offer suggestions as to what should be included in the course entitled, "Principles of Course of Study Development." The material presented is meant only to establish a point of departure. It is hoped that through cooperative discussion, a common statewide syllabus can be developed which will enable teacher educators to better prepare vocational education professional personnel.

COURSE OBJECTIVES

The following general Course Objectives represent the basic parameters of the course and provide direction for the teacher educator as the course is planned and developed.

At the conclusion of this course the student is expected to be able to:

1. List the elements of a course of study in vocational education.
2. Relate application of the elements of a course of study to one's vocational education program.
3. Explain the major advantages of utilizing the course of study in planning instruction.
4. Develop the essential sections of the course of study utilizing techniques that conform to guidelines in the Instructional System Design (I.S.D.) model.
5. Assemble the course of study into a finished document suitable for use in planning the total instructional sequence of one's vocational education program.
6. Successfully complete a final comprehensive exam given during the last class session.

COURSE OUTLINE

The following course outline is provided to present the main instructional topics and sub-topics to indicate the general scope of the course. The sequence for teaching the following ten units may vary depending on student needs and time constraints.

I. Orientation to Course of Study
  1. Need and purpose for course of study.
  2. Definitions related to course of study (Appendix H)
  3. Major sections of course of study
  4. Role of course of study in organizing and planning instruction (Appendix Page I)
  5. Course requirements and evaluation procedures

II. A Systematic Approach to Curriculum Design
  1. Relationship among (a) program of studies, (b) curriculum, and (c) course of study
  2. Components of the "I.S.D." model
  3. Prepare Title Page*
  4. Prepare Introductory Statement*

III. Philosophy and Its Relationship to Course of Study Development
  1. Common definitions of philosophy
  2. Purposes of American education
  3. Relationship of general education to vocational education
  4. Vocational education's unique contributions to American public education
  5. Seven Cardinal Principles
  6. Imperative educational needs of youth
  7. Develop a statement of educational philosophy for specific programs*

IV. Establishing Instructional Objectives
  1. Course goals vs. instructional objectives
  2. Factors to consider when selecting objectives
  3. Classification of objectives (i.e., cognitive, psychomotor, affective, perceptual)
  4. Write Course Objectives for specific vocational program*

V. Development of the Course Outline
  1. Using surveys and occupational analyses to identify course of study outline
  2. Review and explain state developed occupational analyses
  3. Explain procedure for developing an occupational analysis
  4. Relationhip between occupational analysis and course outine
  5. Use of advisory committee and school administrators in identification of specific program content

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    6. Develop Program Outline*

VI. Scoping and Sequencing Laboratory Content
    1. Sequencing factors (early need, frequency of use, simple to complex psychological factors)
    2. Determining Modules
    3. Vehicles of instruction
    4. Frequency charts
    5. Define scope of program

VII. Grouping and Scheduling Tasks
    1. Identifying and preparing "Grouping" Objectives (performance)
    2. Repetition of tasks
    3. Rotation schedules
    4. Sequence tasks and groupings

VIII. Course Content Format
    1. Principles of correlation
    2. Determining related course content
    3. Types of related course content (technical, general, guidance, etc.)
    4. Sequencing related topics
    5. Grouping strategies (instructional, management, evaluation)
    6. Develop Course Content Format for specific vocational programs*

IX. Determining Instructional Program Strategies
    1. Types of curriculum organization (subject-centered, correlated, core, etc.)
    2. Advantages of core curriculum
    3. Relationship of program strategies to principles of learning
    4. Areas to consider when developing instructional program strategies
    5. Develop Instructional Program Strategies for specific vocational programs*

X. Assembly of Course of Study
    1. Review procedure for the development of a course of study
    2. Construct Bibliography*
    3. Construct Table of Contents*
    4. Construct Acknowledgement*
    5. Assemble sections of course of Study

---

*Each of these sections are further developed in the course content section of the course syllabus.

COURSE CONTENT

The following pages contain a series of ten information-type sheets which have been developed to assist teacher educators who are given the responsibility of presenting the course entitled, "Principles of Course of Study Construction."

Individual sheets have been written for the following:

1. Title Page
2. Table of Contents
3. The Introductory Statement
4. Statement of Philosophy
5. Course Objectives
6. Program Strategies
7. Course Outline
8. Course Content
9. Course Content Strategies
10. Bibliography

Each information sheet presents the objective, major concept, strategies and references for each section of the course of study. It is the desire of the writers that this information will assist teacher educators as they prepare for classroom presentation.

TITLE PAGE—INFORMATION SHEET

Objective

The student will prepare a title page for his/her course of study that contains the vital information and typed in the recommended format.

Major Concept

The first impression of the reader of a course of study will be a product of the title page. To assure a positive impression, the author needs to give attention to the content, format, and neatness of this important page.

The content of the title page should include the official name of the course, name of the author, where the course of study is to be used, and when the document was prepared. This descriptive information will immediately tell the reader whether the information in this course of study is what they are looking for in terms of content, author, locality, and date of preparation.

The format included in Appendix C has been found to present the necessary information in a logical manner that is pleasing to the eye. The typing should be neat, balanced and centered on the page.

Instructional Strategies

1. This element of the course of study is characterized by its ease of teaching. Therefore, it can be taught at a time that is convenient in the schedule.
2. Clearly duplicated instruction sheets including a sample title page sheet and typing instructions are essential.
3. Adherence to a realistic deadline helps avoid "putting-off" this easy assignment.

Learning Activities

Students prepare finished title page for their course of study and submit it to the instructor for evaluation on the due date.

Evaluation Strategies

The title page is evaluated in terms of (a) content completeness, (b) conformity to recommended format, and (c) neatness and overall appearance.

References

See sample format in Appendix C.

TABLE OF CONTENTS—INFORMATION SHEET

Objectives

The student will prepare the typed table of contents for her/his course of study following the recommended format.

Major Concept

The table of contents is a section in the front of the course of study that lists in sequential order, the titles of each unit included, and the page numbers in the course of study document where these items may be found. The unit titles are major headings of the course of study and compare with chapter headings in a standard textbook. Sub-divisions under a unit title are acceptable if doing so points out or clarifies important content which the reader may wish to locate quickly.

Instructional Strategies

1. This section of the course of study may be one of the last to be developed. However, a preliminary table of contents is prepared in such a way that it may be given early approval with only the page numbers left blank for later entry.
2. This simple lesson is taught when convenient in the schedule.
3. Clearly duplicated instruction sheets including a sample table of contents sheet and typing instructions are essential.
4. Adherence to a realistic deadline helps avoid "putting-off" this easy assignment.
5. Students prepare table of contents page for their course of study excluding page numbers for the various units and submit it to the instructor on the due date.

Evaluation Strategies

The table of contents is evaluated in terms of completeness, conformity to recommended format, neatness and overall appearance.

Proper inclusion of exact page numbers of the various sections of the course of study is considered a part of the summative evaluation of the final assembled course of study.

References

See sample format in Appendix D.

INTRODUCTORY STATEMENT—INFORMATION SHEET

Objective

Upon completion of this class session the student will write an introductory statement for his/her course of study which conforms to the standards in the reference text and is acceptable to the teacher educator.

Major Concept

The first section of the course of study consists of a statement that clearly defines the nature of the course. This statement is comparable to the preface of a book or prologue of a play, since it sets the stage of events to follow. The introductory statement provides an overview of what the teacher expects to accomplish. In addition, this statement establishes certain conditions which limit the information, experiences, and activities to be included. Some of these conditions are spelled out in brief demographic descriptions of the community to be served by the course.

In general, there are two parts to the introductory statement. Part I should answer the following questions:

1. What is the general demographic nature of the community?
2. What are the unique characteristics of the course?
3. What tasks are developed?
4. What knowledges are taught?
5. What changes in behavior are expected?

The second part of the introductory statement lists the time element and grade level for which the course of study is planned. This last item is necessary because the quantity and type of instructional material to be included in the course of study will be governed by time allocations, the grade level of the student, and the prerequisites for the course.

The following questions should be asked in the second part:

1. What is the grade level and duration of the course?
2. How many minutes per day are allotted for the class?
3. How many days per week does the class meet?
4. How many weeks per year will the course require?

Most authors suggest that the introductory statement should be written in a conversational mode rather than in outline form. Also included under this section should be information on social and leadership development through club activities.

Instructional Strategy

Through classroom discussion the professor should discuss the importance of the introductory statement and explain in detail its various parts.

During the classroom session, the student should be given an opportunity to begin to write the introductory statement. The teacher educator can then have students volunteer to read their statements followed by constructive criticisms.

Evaluation Strategy

At the next class session have students submit introductory statements for formative evaluation. The teacher educator will evaluate and accept or return it for necessary rewriting.

References

Giachino, J.S. and Gallington, R.O., *Course Construction in Industrial Arts, Vocational and Technical Education;* 3rd Ed., Chicago, Illinois: American Technical Society, 1967; pages 72-80.

STATEMENT OF PHILOSOPHY—INFORMATION SHEET

Objectives

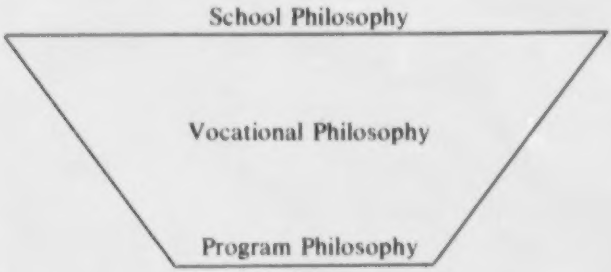
1. Given a formal statement of vocational philosophy, the student will explain, in his/her own words, its major concepts.
2. Given a formal statement of the philosophy of a school system, the student will analyze various statements and discuss concepts which apply directly to vocational education.
3. Upon completion of this class session, the student will write a statement of philosophy for his/her course of study which conforms to the standards established by the teacher educator.

Major Concept

Giachino and Gallington define philosophy as "an expression of attitudes, beliefs, feelings, and impressions related to a given experience."

Any educational program, if it is to give direction, must be founded upon a sound educational philosophy. The philosophy provides the rationale or reason for having the program. If the philosophy is inadequately defined or narrow in scope, it logically follows that the resulting educational program also will be limited.

In developing a program philosophy, particular attention must be paid to the general philosophy of the school as well as the philosophy of vocational education. The usual practice is for a school to provide an overall philosophy which stipulates the nature of its total educational program. Next is the philosophy of vocational education which expresses a more definite philosophy to support the overall school philosophy. In turn, each vocational teacher will have a philosophy for his/her particular program. The program philosophy would likewise support the vocational education philosophy and the overall school philosophy. Pictorially, this process might be illustrated as an inverted cone which shows the logical progression from general to specific.



It is important to stress that a philosophy is concerned with "why." A philosophy should always explain why a program is important, why that program should be included in the total education system, and why the program is being taught.

Important themes to consider when writing a program philosophy are:

1. Importance of program to society
2. Role of program in the labor force
3. Unique elements of the instructional program
4. Economic benefits which result from program

In considering the philosophical aspects of vocational education and that of a particular program, two considerations should be stressed. First, through one's work, one is associated with our form of society. By means of this work, one is able to provide for his/her needs and comfort. Vocational education is a vehicle by which one prepares for work. Secondly, that perpetuation of society hinges on one's ability to render useful services. American standards of living, rests to a large extent on how well its citizenry can be trained to perform useful work.

Instructional Strategy

Discuss Chapter I, "Philosophy and Standard Characteristics of Vocational Education, A Foundation for Curriculum Development" in *An Instructional System Design for: Vocational Education.*

Pass out various school system philosophies and have students compare similar and divergent viewpoints. From systems philosophies discuss which statements apply directly to vocational education and why.

During class sessions, the students should be given an opportunity to write the philosophy for their specific program. The teacher can provide time in class for volunteers to read philosophical statements and offer constructive criticism.

Evaluation Strategy

At the next class session have students submit program philosophy for formative evaluation. The teacher educator will evaluate and accept or return it if necessary for rewriting.

References

Giachino, J. W., and Gallington, R.O., *Course Construction in Industrial Arts, Vocational and Technical Education*, 3rd Ed., Chicago, Illinois; American Technical Society, 1967; pages 81-106.

COURSE OBJECTIVES—INFORMATION SHEET

Objectives

The student will write the general program objectives for the course of study that is being developed in terms of general learning outcomes expected to result from participation in the program.

Major Concept

The need for educational objectives cannot be over-emphasized. These objectives provide the direction and breadth of the course of study. Educational objectives are usually classified into both general and specific objectives. The vocational educator must be concerned with the objectives of all education as well as those of his own field of teaching. General education objectives are selected from many different sources. Objectives represent WHAT is to be taught. The objectives grow out of and support the philosophy developed in a previous assignment.

In recent years, perhaps no other phase of curriculum development has been given more attention than the preparation of educational objectives. Certainly this emphasis is justifiable since the education of many teachers did not follow contemporary patterns and the backgrounds of most did not include any training in objectives at all. It is recognized that, in most cases, instructors know what to teach, but to present instruction in a systematic, orderly sequence often represents a difficult challenge. Attention must be given to the necessary tools, methods, and materials as well as reasonable consideration for measureable outcomes. In this section, the teacher will be presented information sufficient for the preparation of general program objectives.

General program objectives are those which would appear as a list of goals and not a list of specific types of behavior to be attained by students. These objectives include a rather broad overview of the entire program and should embrace the four learning domains: cognitive, affective, psychomotor, and perceptual. Generally, the course of study objectives determine the direction of the instructional program, establish the program parameters, and provide the broad foundation for evaluation activities. A sample set of general program objectives is included in Appendix E.

Instructional Strategies

1. Teacher apprehension and lack of motivation toward writing instructional objectives dictates unusual preparation and a positive approach to the subject by the instructor.
2. Presentation of this topic should follow closely that of the philosophy so that students may sense the movement from general to specific nature of the course of study.

3. Samples of model program objectives from various taxonomies should be available for student references.
4. Adequate time should be reserved for questions, and class participation activities to reinforce concept of *general* program objectives.
5. Provisions should be made for preliminary and final deadline for this section to allow for revisions and corrections.
6. Students prepare the set of general program objectives for the course of study being written. These objectives are to be comprehensive enough to cover all related information topics and laboratory tasks included in the program.

Evaluation Strategies

The general program objectives are evaluated in terms of comprehensive coverage of course content, conformance to guidelines of course objectives, and consistency with the statement of program philosophy.

Students experiencing difficulties in writing general objectives may need a preliminary evaluation, individual assistance, and extra time before final grading.

References

Mager, Robert F., *Preparing Instructional Objectives*, Palo Alto, California; Fearon Press, 1967.

COURSE OUTLINE—INFORMATION SHEET

Objective

The student will select the necessary tasks for his/her individual program and organize them into a course outline.

Major Concept

The term Course Outline, in Vocational Education, has been defined as "a topical listing of content of a specific course." This topical listing is at the duty level of the occupation and includes both the duties and the tasks necessary for successful performance in the occupation.

Whether the instructor has been provided with an occupational analysis of his/her teaching area or has developed his/her own analysis, it is now necessary to begin selecting and organizing the tasks from the analysis into a specific plan or content outline. The advantage of developing the outline is that it allows the instructor to approach the instructional strategies and teaching schedule from a more systematic viewpoint.

Technically, the development of the course outline is a cooperative venture, involving the local supervisor, members of the Advisory Committee and the instructor(s) of the program. Sometimes this group of people is called the Content Outline Team. The first step in preparing the outline is to critically review the analysis to determine if it contains all of the necessary tasks. If it is found that certain tasks are not included in the analysis, the instructor should add the necessary tasks.

With this preliminary identification of tasks completed, the tasks should now be divided and organized into junior and senior year or other specific grade level designations.

The allocation of specific tasks to certain grade levels should be made on the basis of prerequisite skills and knowledge, student maturation and relevance to the employment needs of the students. As a last check on the selection of tasks for the course outline, each task should be accepted only on the basis of its ability to meet essential needs, its motivational value, the availability of instructional facilities, and the amount of instructional time available for the course.

The instructor should now prepare a first draft of the content outline and present this proposed content outline to other members of the content outline team for their evaluation and recommendations.

Upon receipt of the input from the content outline team, the instructor should now prepare a revised list of tasks which have been selected and organized according to the steps previously identified.

An example of several portions of a course outline may be found in Appendix F.

Instructional Strategies

1. This section should be one of the major efforts of the course. Emphasis is placed on the quality of this vital link between occupational demands and educational curriculum.
2. Previous to classroom presentations on course outline students should be directed to obtain an occupational analysis for their program. If it is discovered that an analysis is not available, instructional time should be arranged for a lesson on preparing an analysis.
3. Sample course outlines from various taxonomies should be utilized as instructional aids.
4. A preliminary check of student progress on a partial outline (2 duty blocks) will reveal degree of understanding of this assignment.
5. Completion of this assignment as early in the course as possible is important since the course content must correlate with course outline tasks.
6. Students prepare preliminary course outline (2 duty blocks) for approval utilizing the occupational analysis.

Upon approval of the preliminary course outline, the students complete final outline and submit it to the instructor for evaluation on the due date.

Evaluation Strategies

The course outline is evaluated in terms of:

1. Conformity to guidelines for starting tasks
2. Organization of duty blocks and tasks
3. Completeness of the outline
4. Format

References

See sample course outline in Appendix F.

Shoemaker, Byrl R. and Parks, Darrel, *An Instructional System Design for: Vocational Education;* Columbus, Ohio, 1976; pages 27-39.

COURSE CONTENT—INFORMATION SHEET

Objectives

Upon completion of this phase of the course, the student will be able to:

1. Correlate laboratory tasks and related information selected from the course outline and occupational analysis, using sequential factors presented in class.
2. Develop acceptable instructional groupings for his/her program which will indicate a time frame, performance objectives, appropriate tasks and related lesson titles.

Major Concept

The course content section of the course of study requires the greatest amount of time and effort to complete. It is in this part of the course of study that laboratory and related class content is organized in the proper sequence for teaching.

While the purpose of the occupational analysis is to identify the manipulative tasks and technical related information needed to function in a given occupation, and the course outline represents a listing of tasks selected from the occupational analysis, their organizational structure or intent does not provide the best possible arrangement for organizing course content. It is important to stress that course content be listed in a sequential manner based upon progressional factors rather than by chapters in a textbook. The general pattern is to prioritize tasks based upon the following four factors:

1. Frequency of use
2. Early need
3. Normal job sequency
4. Simple to complex

Laboratory tasks are selected from the course outline and placed into the course content section in proper sequence based upon the before mentioned factors. In most instances, the tasks which are logically taught in close sequence are grouped together. This clustering of tasks for instructional purposes is referred to as a "module." A series of modules are then grouped together in a general time frame: this process is referred to as a "grouping."

The technical related course content is identified from the laboratory tasks. Through examination of each task which is placed in the course content, the teacher can then identify the appropriate related information which the student must know in order to perform the manipulative tasks intelligently.

There are several kinds of types of related information associated with vocational programs. They are typically classified as: general, socioeconomic, and guidance information. Each of these types of related information can be found in a comprehensive vocational program.

The related topics (lesson titles) which are included in the course content section are an integral part of the course of study. They are *not* to be considered incidental material! These topics carry the same status in a vocational program as do the laboratory tasks. It is through this process of correlating the related topics with the laboratory tasks that the science, mathematics, communications, and other content becomes meaningful for the student.

As the course content section is being assembled, the "core" concept of curriculum organization should be stressed. The structured program which provides time for task-oriented instruction and additional time for the cognitive and affective elements, lends itself naturally to a core curriculum mode.

Each vocational service area has selected a course content format which enables the teacher to assemble related content in a logical fashion to meet the needs of their respective programs. Format samples are presented in the Appendix G.

Instructional Strategies

During the classroom session the teacher educator should stress the importance of the course content section and illustrate how the related instruction and the laboratory tasks are tied together utilizing the core concept approach to curricular organization.

It is advisable to explain the developmental process of going from the occupational analysis to the course outline to the course content. Practical examples of this procedure could be shown by using available state-developed occupational analyses.

Time should be provided in class to enable students to develop a sample of the course content for their respective program. Selected students could then go to the chalkboard to illustrate their understanding and to further clarify the use of the format if necessary. Sample pages of course content from different service areas are shown in Appendix G.

Evaluation Strategy

At the next class session have students submit course content for at least two groupings for formative evaluation. The teacher educator can either accept or return for necessary rewriting.

References

Shoemaker, Byrl R., *An Instructional System Design for: Vocational Education;* Columbus, Ohio; The Ohio State University, Division of Vocational Materials Laboratory, 1976, pages 72-88.

COURSE CONTENT STRATEGIES—INFORMATION SHEET

Objectives

As a result of classroom instruction and discussion, the student will be able to:

1. Define in writing the terms instructional, management and evaluation strategies and be able to explain the purposes of each relative to the course content.
2. Develop instructional management and evaluation strategies for each "grouping" identified in the course content section.

Major Concept

The course content section, in addition to sequencing and correlating laboratory and related content, also contains strategies which identify "how" the content will be taught, organized and evaluated. For each grouping presented in the course content, therefore, there should be a corresponding instructional, management and evaluation strategy.

The strategies provide a foundation for insuring that sound instruction takes place on purpose, not by accident. Every teacher needs to make certain decisions relative to how they will teach, organize and evaluate their laboratory and classroom instructional program. These decisions involve the development of strategies.

Many different factors must be considered when writing instructional strategies.

The following list presents some of the major factors to consider:

1. Physical facilities (laboratory and classroom)
2. Equipment (quantity and nature)
3. Number of students
4. Instructional materials and supplies
5. Community support (fiscal)

As mentioned earlier, there are three areas of strategy development which must be considered. The first is the management area. The Management Strategy deals with the physical or tangible elements of the instructional program. Management deals with the effective application of all the resources available to the teacher. In writing this strategy, the teacher must ask the question, "What materials, equipment, and supplies must I have on hand in order to present this material effectively?"

Also included in the management strategy is the system which the teacher plans to utilize in rotating the students through the various modules which are identified under the appropriate grouping. Will all students be instructed on the same task at the same time, or will it be necessary to group the students into teams and to rotate those teams between tasks on the basis that there is a limited amount of equipment which restricts the number of students that can be working on a certain task at any one time? This and other questions concerned with scheduling student experiences is appropriately listed under the Management Strategy.

The instructional process is the second area which must be considered when developing strategies. This deals with the process of teaching. In this strategy the teacher asks the question, "How will I present the laboratory and related content?" It is concerned with all the program elements that relate to imparting tasks and knowledge and the dynamics of the student/teacher relationship. For example, will the demonstration be given to the total class, small groups or individuals? How will the tasks presented be reinforced? Also, will the student learn in order as the teacher gets to him, or will they learn from a peer who has already gone through the process? These and other questions need to be answered in the Instructional Strategy.

The third area to consider when writing strategies is the process of evaluation. Evaluation is concerned with all elements involved in determining student achievement and/or program success. An effective evaluation strategy will provide for formative, intermediate and summative applications.

Formative evaluation provides immediate feedback that allows the teachers to modify or shape their teaching as it is being performed. The immediacy characteristic of formative evaluation is an important dimension of the evaluation which cannot be overlooked. In the evaluation strategy means by which formative evaluation can be achieved should be described.

Intermediate evaluation should be considered in the Evaluation Strategy. Intermediate assessment takes place as it allows the teacher to evaluate a series of tasks that are components of a larger duty area.

Summative evaluation is effective when the teacher is attempting to determine if the student can actually assimilate the various tasks into the performance of the duty areas of grouping. It is the evaluation which is done at the completion of a major unit of instruction.

In writing Evaluation Strategies for the course content section it is important to stress that both related and laboratory content is to be evaluated. The Evaluation Strategy statements which are written should be directly related to the performance objectives which are listed for each module and listed in the course content section.

Instructional Strategy

During the classroom session it is important for the teacher educator to show the interrelationship of the performance objectives, tasks, related topics, and strategies as they exist for each grouping within the course content.

It is advisable, therefore, that the students be given class time, under the supervision of the teacher educator, to complete all course content elements (objectives, tasks, related tables, strategies, etc.) of at least two groupings. In this way, confusion which might exist can be cleared up before the student writes other groupings in the course of study.

It is further recommended that the teacher educator display samples of acceptable formats to assist teachers in the understanding of the concepts.

Evaluation Strategy

At the next class session have students submit course content for at least two groupings for formative evaluation. The teacher will evaluate the total course content paying particular attention to the course content strategies and will accept them as completed or return for necessary rewriting.

References

Shoemaker, Byrl R., *An Instructional System Design for: Vocational Education;* Columbus, Ohio; The Ohio State University, Division of Vocational Education, Instructional Materials Laboratory, 1976, pages 88-93.

INSTRUCTIONAL PROGRAM STRATEGIES— INFORMATION SHEET

Objectives

1. The student will prepare a list of topics to be described in the instructional program strategies for her/his course of study.
2. The student will write a description that will clearly explain the managerial activities planned for each topic identified in their program strategies.
3. The student will organize and arrange the descriptions into a sequence that will give a clear picture of the overall managerial activities of the teacher.

Major Concept

One of the many facets of the teacher's responsibility that affect curriculum development is that of management of the teaching-learning experiences. The success of a teacher in the profession is dependent to a large degree on his/her ability to plan and carry through the experiences that lead to achievement of the course objectives.

By thinking through and then writing down one's own plan of program operation, the teacher accomplishes at least two important things:

1. Written evidence of planning education experiences to meet the objectives of one's course.
2. A source of reference for future revisions and updating of one's management policies and practices.

The instructional program strategies is defined as a description of the various managerial activities involved in teaching a particular course. This plan is concerned more with *how* one goes about teaching than it is with *what* is taught. An example of a typical topic to be covered in this section of the course study is student personnel organization. Each vocational teacher is faced with devising policies and practices for managing this phase of teaching.

Therefore, a description of this activity should be part of one's plan of program operation.

There is no set pattern of management for all programs. However, there are common areas of need where each teacher should show evidence of adequate planning. The list of topics below are meant to be basic and not inclusive for all courses of study, therefore, the individual teacher should feel free to add topics that would help give an accurate picture of his/her particular course. The instructional program strategies should include descriptions of the teachers policies and practices in the following areas:

1. The Safety Program
2. Provisions for Individual Differences
3. The Student Personnel Organization
4. Youth Organization Program
5. Behavior Control
6. Grading

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7. Laboratory Finances
8. Inventory Control

While many teachers will find the above areas sufficient, others may feel the need to add such topics as correlation of instruction with other teachers, student planning, student placement, and special areas unique to one's program. As the writer of this plan, the teacher *selects* those areas that are pertinent to his/her particular course.

Instructional Strategies

1. This section may be covered as the course progresses to the point where students are feeling confident about identifying what is taught and are receptive to the introduction of techniques of describing how one goes about teaching his/her course.
2. Efforts should be made in this section to strike a balance between adherance to format and accurate descriptions of unique practices. Students in this course look to the instructor's lesson presentation and assignment requirements for direction concerning the format vs. unique practices dilemma.
3. When composing the rough draft of each area, it is helpful to ask the student to assume the role of explaining to another educator just "how I handle . . ." This approach gets ideas, facts, sequences, etc., on paper in a fashion that can be refined as topic headings are finalized and prepared for typing. This is a good time to revise and update those policies and practices that may or may not be in writing as well as plan for new policies.
4. Sample strategy statements from various taxonomies should be prepared as instructional aids.
5. The due date for this section should be planned to allow time for revisions, and corrections to be made and re-submitted with the final assembled copy.
6. An assignment(s) is given for students to develop narrative descriptions of the instructional strategies for the course of study being developed.
7. The total assignment is to include those topics identified as required plus any additional topics needed to give an accurate picture of the managerial activities involved in teaching the course.

Evaluation Strategies

The Instructional Program Strategies are evaluated in terms of:

1. Number of topics described
2. Completeness of each description
3. Overall effectiveness of the statements to describe the instructional strategies

References

Shoemaker, Byrl R. and Parks, Darrell, *An Instructional System for: Vocational Education;* Columbus, Ohio, 1976, pages 50-56.

BIBLIOGRAPHY—INFORMATION SHEET

Objective

Assembling a variety of materials, the student will compile a program bibliography using an appropriate and correct style which will list the major texts and other documents.

Major Concept

The primary purpose of the bibliography of the course of study is to identify and give appropriate credit to those sources which have been used as a referenced, paraphrased, or quoted statement within the course of study.

The bibliography lists the sources which are utilized in presenting the vocational program. Only relevant documents are included.

The bibliography is normally categorized according to various types of publications or documents used. For example, all texts are listed together, and all manuals are listed together. These different types of publications are referred to as subdivisions of the bibliography. Within each subdivision, all entries should be arranged in alphabetical order.

Bibliography entries should be listed in proper form and sequential order. Many manuals and books are available which illustrate proper styles for writing bibliography entries.

Instructional Strategy

Discuss in class various documents which could be used in a course of study and illustrate on the chalkboard the proper way of entering sources in a bibliography.

Pass out 3x5 cards and have students make various entries from available sources. Have students share information on cards by having them transfer information on card to chalkboard.

Present students with handout of incorrectly stated bibliography entries. Have them rearrange information into correct style and order.

Evaluation Strategy

At the next class session have students submit a copy of their course of study bibliography for formative evaluation. The teacher educator will evaluate and accept or return if necessary for rewriting.

References

Turabian, Kate L., *A Manual for Writers of Term Papers, Thesis, and Dissertations;* Chicago, Illinois: The University of Chicago Press, 1971.

INSTRUCTIONAL STRATEGIES

The details of one's instructional strategies are of course a matter of academic freedom, individual teaching style, and local needs. However, the following items should be helpful to teacher educators who are responsible for presenting the material.

1. Collegiate level class setting and standards prevail throughout the course.
2. Instruction is directed to: (1) Undergraduate majors in vocational education, or (2) In-service vocational education teachers.
3. Presentations center around explanation of the I.S.D. model and relating the various elements to local program curricular needs.
4. The first sessions of the course are characterized by topical presentations while later sessions utilizing individual assistance work sessions, and synthesizing activities; i.e., first sessions are concept developers, latter sessions are product builders.
5. Individual elements of course of study become topics for classroom presentation, discussion and assignments. The sequence of presentation is dictated by need and time required for completion of the assignment rather than arrangement of elements in the final course of study.
6. Illustrations, sample formats, and completed courses of study are used to assist individual teachers in development of material that fits local need *and* conforms to the I.S.D. model.
7. Assignments for development of the individual elements of course of study are given with deadlines that permit corrections, and revisions before final typing.
8. Summative evaluation is given to completed assignments only in order to promote a sense of writing a course of study that is workable as a planning document rather than doing assigned papers about curriculum.
9. Provisions for individual conferences with the instructor permit students to develop material that is relevant to local program needs.
10. A final comprehensive examination is given to determine the degree to which course objectives have been met.
11. For pre-service classes, provisions should be made to allow the prospective teachers to interact in small groups, in preparation for selecting specific teaching strategies.
12. For disadvantaged, handicapped and cooperative education programs, provisions should be made to modify instructional strategies and course content format to accomodate the unique characteristics of these programs.

EVALUATION STRATEGIES

To properly assess the degree of competence which the student has gained in the course, both formative and summative evaluation procedures should be used.

As illustrated on each of the individual information sheets, each section of the course of study should be evaluated as it is completed and turned in by the student. Formative evaluations on a weekly basis provides the student with immediate feedback, and as a result, minimizes the chance for misunderstanding of assignments. It is further advisable to permit students to rewrite the various sections of the course of study prior to the final submitted manuscript.

Two types of summative evaluations should be required for this course. Each student should be required to:

1. Submit a portion of the completed course of study for evaluation purposes. An evaluation point system could be used to objectively evaluate the submitted manuscript. (Appendix A)
2. Take a comprehensive examination based upon the stated course objectives. (Appendix B)

Although it is difficult to provide a system of evaluation which is applicable in all classrooms, the following percentages might be considered for the final grade determination:

1. Classroom discusson — 10%.
2. Portion of course of study — 65%
   (At least two groupings of the course content and all other sections completed)
3. Final Examination — 25%

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APPENDIX A

EVALUATION OF COURSE OF STUDY

SECTION OF C.O.S.	POSSIBLE WEIGHT	POINTS EARNED
Title Page	2	
Acknowledgements	2	
Table of Contents	4	
Introductory Statement	6	
Philosophies	6	
Course Objectives	10	
Instructional Program Strategies	14	
Course Outline	15	
Course Content	28	
Course Content Strategies	8	
Bibliography	5	
TOTAL	100	

COMMENTS:

APPENDIX B

COURSE OF STUDY
FINAL EXAMINATION

I. **True-False Section:** Encircle the letter T preceding those statements that you consider to be True and the letter F for statements you consider False. Each correct answer is worth 2 points.

1. T F An occupational analysis is performed to determine the availability of jobs in a certain geographic area.

2. T F The two advantages of a course outline are: (1) it identifies the manipulative tasks to be taught, and (2) it places the tasks into proper teaching sequence.

3. T F A manipulative task is broken down into several demonstrations.

4. T F General objectives are stated more in general terms than are performance objectives.

5. T F Simple to complex is always the first consideration when determining an instructional order.

6. T F Technical information topics are concerned with information that helps students make decisions in the laboratory.

7. T F Vocational education curricula uses the "core approach" rather than the "subject centered approach."

8. T F A module contains a series of groupings.

II. **Completion:** The following statements are to be completed by inserting the correct word or words in the blank space provided. Each statement is worth 2 points.

9. Objectives concerned with values, attitudes and feelings are referred to as ______________ objectives.

10. Occupations are classified for instructional purposes into production and ______________ occupations.

11. Entrance and exit procedures would be explained or described in the ____________ strategy.

12. Student laboratory assignments, use of demonstrations and correlation of content would be described in the ____________ strategy.

13. Objectives concerned with mental and intellectual activities are referred to as ____________ objectives.

14. Brief instruction on why a tool is used in a certain way which is given during the demonstration is referred to as ____________ knowledge.

15. Objectives concerned with skill development in the manipulation of materials, tools and processes are referred to as ____________ objectives.

16. The total offering of a school system is referred to as the program of ____________.

17. The section of the course of study which shows the time element, grade level and prerequisites of the course is called the ____________ section.

18. The section of the course of study which consists of statements which clearly defines the nature of the course and resembles the preface of a book is referred to as the ____________ section.

19. A systematic arrangement of courses designed for a particular group of students is known as a ____________.

20. A comprehensive plan which shows the scope and sequence of all activities provided for a particular subject is called a ____________ of ____________.

21. An expression of feelings, beliefs, attitudes or impressions relative to a given experience is found in the ____________ section.

22. Information which is desirable to know, but is *not* directly connected with manipulative work is known as ____________ information.

23. A statement which provides the rationale or "why" a course is offered by a school system is found in the ______________ section.

24. Information which helps the student form correct judgments in the laboratory is referred to as ______________ information.

25. When writing a course of study and describing how you plan to measure performance, you are writing a/an ______________ strategy.

26. Guidance information which is concerned with the selection of and preparation for an occupation is referred to as ______________ information.

27. Logistical considerations concerned with obtaining work for students in the laboratory, and utilizing available equipment for maximum usage would be described in the ______________ strategy.

28. Rotation of students would be described in the ______________ strategy.

III. **Matching.** Place the correct letter opposite the appropriate number on your answer sheet. Use each letter you select only once. Not all letters will be used. Each correct answer is worth 2 points.

29. ___ Breakdown of a task into a logical teaching sequence.

30. ___ A listing of duty areas and tasks to be included in the course.

31. ___ A detailed plan containing 4 steps, title, objectives, and materials used.

32. ___ A series of tasks organized into a general time frame.

33. ___ A plan showing tasks and correlated lesson titles.

A. Curriculum

B. Lesson Plan

C. Acknowledgement

D. Scope

E. Grouping

F. Steps

G. Module

H. Rotation

I. Course Outline

34. ___ Thanking a person for help in the completion of the course of study.

35. ___ Tasks which are similar and placed together for teaching sequence.

36. ___ A process which assures that all students have an opportunity to gain experience in all phases of the vocational program.

J. Course Content

K. Title Page

L. Introduction

M. Occupational Analysis

IV. Essay.

39. Describe the A B C D method for writing behavioral objectives (8 points)

40. Select an instructional level objective which could be used in your vocational course and properly state it in the space below. (8 points)

41. Below is the information taken from our textbook. You are to select from this information only the material you need in order to write a properly stated bibliography entry. The entry must be in proper sequence with correct punctuation. (8 points)

Chicago — U.S.A. — Library of Congress — 3rd Ed. — 1967 — American Technical Society — J.S. Grochino — Course Construction in Industrial Arts, Vocational and Technical Education — Ralph O. Gallington — 314 pages — Copyright 1954, 1961, 1967.

APPENDIX C

SUGGESTED FORMAT FOR TITLE PAGE OF COURSE OF STUDY

COURSE OF STUDY
for
VOCATIONAL COSMETOLOGY
11th GRADE

QUADRA-COUNTY
JOINT VOCATIONAL SCHOOL
Black Creek, Ohio

Prepared by:
Joanne Kurler

May 1976

APPENDIX D

SAMPLE TABLE OF CONTENTS

Table of Contents

UNITS **PAGE**

I. Acknowledgements i
II. Table of Contents ii
III. Introductory Statement ....
IV. Philosophy ....
  School
  Course
V. Objectives ....
VI. Plan of Program Operation ....
VII. Course Outline ....
VIII. Course Content ....
IX. Bibliography ....
X. Appendix ....

APPENDIX E

SAMPLE: GENERAL PROGRAM OBJECTIVES

Program: Automotive Mechanics

1. Upon completion of the automotive mechanics program, all students will be able to perform each duty included in the instructional program at an occupational entry level in accordance with industry-approved automotive mechanics standards of practice and performance common to independent or dealership garages.
2. Each student will be able to demonstrate a knowledge of automotive nomenclature, technical information, procedural steps, principles of math and science, and factors of communication required in the maintenance and repair of automotive units. Students will demonstrate their ability to apply such knowledge and understanding within the laboratory in accomplishing the assigned laboratory tasks, and will further demonstrate their ability to adapt and apply knowledge and principles learned in relation to advances in automotive technology.
3. Students will demonstrate proper procedures and respect in the use of tools, in work performed on customer vehicles, and in maintaining a safe, clean working area. In addition, students will demonstrate their capabilities in working both as individuals and in a team relationship, and will further demonstrate punctuality and regular attendance on the job as a result of experience acquired through the instructional program.
4. Students will demonstrate their abilities to use auditory, tactile, olfactory, and perceptual senses and the interrelationships of these sensory factors in the diagnosis of the automotive malfunction.

APPENDIX F

SAMPLE: COURSE OUTLINE

Floriculture

Junior Year

Duty A. Designing

Tasks

1. Arrange a funeral basket
2. Arrange a hospital vase
3. Arrange a center piece
4. Make a casket spray
5. Make up a bud vase
6. Construct a set piece (emblem)
7. Make a boutonniere
8. Make a corsage
9. Make a wedding bouquet
10. Decorate a scene of wedding
11. Dress a blooming plant
12. Arrange a fruit basket
13. Plant a dish garden (terrarium)

Duty B. Selling and Servicing

Tasks

1. Sell a floral product (floor)
2. Establish and maintain display area
3. Wrap a floral product
4. Sell a floral product — (phone)
5. Maintain files and records

Duty C. Delivering and Servicing

Tasks

1. Maintain delivery area
2. Maintain delivery vehicle
3. Make deliveries
4. Maintain sales records and receipts

APPENDIX F (CONT.)

SAMPLE COURSE OUTLINE

Accounting & Computing

Junior Year

1. Operate Related Office Machines
   - A. Operate a "Ten-Key" Adding-Listing Machine and/or Calculator
   - B. Operate a "Full-Key" Adding-Listing Machine and/or Calculator
   - C. Operate a Telephone
   - D. Operate a Typewriter
2. OPERATE DATA ENTRY EQUIPMENT
   - A. Operate Keypunch
   - B. Operate Verifier
   - C. Operate Sorter
3. MAINTAIN MACHINES IN PROPER WORKING ORDER
   - A. Read Section(s) of Machine's Manual Related to Maintaining the Machine
   - B. Maintain Proper Machine Environment (Humidity, Temperature, Power Sources)
   - C. Perform Preventive Maintenance
4. PREPARE FINANCIAL STATEMENTS
   - A. Prepare Source Documents
   - B. Post all Journal Entries to General Ledger
   - C. Assist in Preparing Financial Statements and Government Reports
5. HANDLE BANKING DUTIES
   - A. Prepare Source Document for Processing
   - B. Maintain Cash Control
   - C. Prepare Bank Reconciliation
   - D. Maintain Checking Account
   - E. Deposit Cash, Checks, Money Orders
   - F. Maintain Petty Cash Fund

SAMPLE COURSE OUTLINE

Auto Mechanics

Junior Year

General Service

1. Keep shop records
2. Write a repair order
3. Maintain customer relations
4. Obtain information from service manuals
5. Change engine oil
6. Lubricate a vehicle
7. Safety inspection
8. Repack front wheel bearings
9. Check lights
10. Replace fan belt
11. Rotate tires
12. Repair a tire
13. Balance a tire
14. Solder a connection
15. Basic cuts and welds with acetylene
16. Drill a hole
17. Tap or cut threads — internal/external

Engine

1. Diagnose engine problems
2. Clean engine
3. Check compression
4. Check oil pressure
5. Adjust valves
6. Repair engine oil leaks
7. Remove and replace an engine
8. Remove and replace valve stem seals
9. Remove and replace cylinder head
10. Grind valves
11. Remove and replace muffler
12. Remove and replace exhaust pipe
13. Remove and replace catalytic converter
14. Diagnose fuel system problem
15. Remove and replace air cleaner and/or service
16. Remove and replace fuel filter
17. Test fuel pump

18. Remove and replace a fuel pump
19. Remove and replace a fuel line
20. Remove and replace a gas tank
21. Service gas tank guage
22. Remove and replace a carburetor

APPENDIX G

TRADE AND INDUSTRIAL EDUCATION

Course Content

Instructional Grouping #3

Time Allotment 30 hours — Days 9-18 plus 15 hours
LAB RELATED

Course Content

Laboratory		Related Technology
LEARNING MODULE A ENGINE CLEANING		
Objective: The student will clean all of his assigned engine parts, to industry accepted standards, and acquire a working knowledge of the importance of cleanliness during engine overhaul.		
Engine Cleaning:		
1. Clean rocker covers	9	Connecting Rods—Function and Reconditioning
2. Clean exterior of carburetor		
3. Clean intake manifold	10	Crankshafts—Function and Reconditioning
4. Clean and polish rocker arms or rocker shaft		
5. Clean pushrods	11	Flywheels—Purpose and Design
6. Clean lifters		
7. Clean cylinder heads		
8. Clean water pump	12	Piston Types and Design —Quiz
9. Clean harmonic balancer		
10. Clean timing cover		
11. Clean timing chain	13	Piston Oil Rings, Types and Replacement
12. Clean timing gear		
13. Clean crankshaft sprocket		

RELATED TOPICS: (Continued)

c1. Determine service conditions
1. Determine service conditions
2. Determine additives (Technical written terminology—comm.)
3. Select according to machine use (Details and inference—comm.)
4. Select according to weather condition
d1. Select the fuel
2. Determine tools and materials needed
3. Prepare fuel for two cycle engines
4. Fill tanks
5. Store fuel
f1. Check all bolts, screens and linkage
2. Service engine properly
3. Clean surrounding area
4. Set choke and throttle
5. Turn-off switch
6. Crank engine
7. Set r.p.m. (Measure of speed—math)

EVALUATION

1. Written—identification, oil and fuel selection

REFERENCES

Briggs and Stratton Repair Instructions III. Milwaukee, Wisconsin: Briggs and Stratton Corporation

SKILLS: (Continued)

c. Select proper grade and type of oil

d. Fuel engine

e. Check fuel and oil level

f. Start engine

EVALUATION:

1. Performance—identification operation procedure

REFERENCES

Small Engines. Volume I and II. Athens, Georgia: American Association for Vocational Instructional Material, Agricultural Engineering Center, 1971.

General Theories of Operation. Milwaukee, Wisconsin: Briggs and Stratton Corporation

John Deere Fundamentals of Service - Engines. Moline, Illinois: John Deere Service Publications.

Phipps, Lloyd J. Mechanics in Agriculture. Danville, Illinois: The Interstate Printers and Publishers, Inc.

Small Engines. Volume I and II. Athens, Georgia: American Association for Vocational Instructional Material, Agricultural Engineering Center, 1971.

EQUIPMENT AND SUPPLIES:

Transparency masters—*Engine Positions*
Transparency masters—*Operating Cycles*

EQUIPMENT AND SUPPLIES:

Funnel
Oil as recommended
Standard screwdriver
Selected two and four-cycle engines for training stations

STRATEGIES: The technical information in this task area will be taught by demonstration. A set of selected laboratory two- and four-cycle engines will be used as resources for skill development.

LEARNING CENTERS:

*1. Operating small engines (IV-F1)
2. Maintaining small engines (IV-F2)
3. Trouble shooting small engines (IV-F2)
4. Overhauling small engines (IV-F3)
5. Maintaining lawn and garden power equipment (IV-M1)
6. Operating lawn and garden power equipment (IV-M2)
7. Trouble shooting lawn and garden power equipment (IV-Me)
8. Demonstrating formal communication skills (I-B10)
9. Improving scholarship (I-A8)
10. Obtaining the qualifications to serve as an FFA chapter officer (I-B4)

*Point of Reference

BUSINESS AND OFFICE EDUCATION
COURSE CONTENT

Related Instructional System

Duty: D. Prepare Typewritten Copy

COMMUNICATIONS ______ hours	MATH ______ hours	MATH ______ hours
Reading: Extensive: from textbook, handwritten copy, edited materials, handouts, for proofreading and editing from instructions style manuals	arithmetical calculations to complete extensions and totals on business forms calculations to determine placement of margins and tabular stops	pride in completing work proper care of typewriter self-motivation in completing assignments be discrete about confidential matters routine work without frustration efficient, economical use of supplies
Writing: writing revision marks writing numbers or messages, write legibly, neatly, willingly		

AGRICULTURE EDUCATION
COURSE CONTENT

Instructional Schedule

Instructional Program: Agriculture Mechanics

Approximate Time Sequence 3 hours
Date ____________________

Performance Objectives: Given a two and four-cycle engine, the student will be able to identify and demonstrate proper operating procedure according to the manufacturer's operator's manual and to the satisfaction of the instructor.

RELATED INSTRUCTION	LABORATORY ACTIVITIES
RELATED TOPICS	
a1. Identify size and oil filter plug or cap	DUTY: F. Using Small Engines
2. Identify location of exhaust parts of muffler	TASK: F1. Operating Small Engines
3. Determine name plates or operation instruction (Technical written directions—comm.)	SKILLS: a. Identify small engines 2 or 4 Cycle
4. Complete compression check	
b1. Start engine	
2. Determine importance of proper operation	b. Operate equipment
3. Adjust engine speed and load	
4. Stop	

Listening:

oral instructions

films

Speaking:

talk with peers and instructor about procedures or instructions

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SAFETY _____ hours

pull plug of typewriter at plug rather than cord

do not run cords in walkways

turn typewriter off when not in use

keep hair, jewelry, and dangling objects from movable parts of typewriter

A complete listing of safety rules can be found in APPENDIX

SAFETY _________ hours

Formative: Quizzes and tests over factual materials
Observations of instructor; results discussed individually
Production Timings
Practice and simulated typing exercises

Summative: Type given material in mailable form.

Business and Office Education

GOAL: Develop an entry-level office skills, work habits, and positive attitudes conducive to office employment

DUTY: Prepare typewritten copy

COMPETENCY: Type form letters with fill-ins or operate automatic typewriter.

Sub-Competencies:

typewritten operation
error correction skills
format
proofreading skills
operation of automatic typewriter
preparation of duplicated material
typewriter care and maintenance
alignment to duplicated copy
organization of work area

Performance Objectives:

Students will fill in addresses and related material on duplicated letters according to instructions with corrections set up. The student may use an automatic typewriter to add individualized information to a duplicated document.

Instructional Strategies:

discuss importance of automation
read related article on automation and word processing
review salutations
review alignment with printed material
discuss amount of lines and spaces to be left for information
field trip to view word processing department
students prepare stencils for form letter

Resources: *Typing 300.* pg. 90, 66, 71, actual assignments from teachers in system, correction materials, duplicated copy, office supplies, handouts with exercises

Evaluation:

FORMATIVE: Students will be observed and rated by the instructor on correct method of inserting information on pre-duplicated copy, office supplies, handouts with exercises

Work will be rated according to the sheet distributed to the student and located in the appendix.

Production timings wil be graded according to scale.

SUMMATIVE: Form letters will be typed in mailable form using available equipment.

RELATED CLASS
INDIVIDUALIZED INSTRUCTION

Job Station: MUSIC AREA JR X

Duty: Supervises Children in Carpentry Activities SR____

No. of Individualized Related Class Sections:

Rotation: Second

Technical Content	Math Concepts	Science Concepts
Procedures for using woodworking tools		
Suitable tools for specific materials, i.e. boards, plywood, cardboard, etc.	measurement centimeters millimeters meters	
Safety considerations in tool use		
Techniques of passive and active		
Ways to encourage exploration, cooperation and independence use of media set up/clean-up		
Methods of supervision		Principles of Development 5 (pg. 58)

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Types of cleaners and supplies	measurement liquid dry	chemical reaction of cleaning agents
Methods of cleaning		
Safety consideration		
Essential tools and supplies		
Procedures for making simple repairs		
Types of Storage commercial handicrafted		
Storage methods for better energy management		

LABORATORY INSTRUCTION

Job Station: STORIES AREA A
Duty: Supervise Children in Housekeeping Area
JR X
SR ____

No. of Laboratories: 4 sessions @ 3 hours each = 12 hours
Rotation: Second

Task Statement	Materials Supplies	Safety
1. Set up a housekeeping area with props, supplies and equipment	stove sink refrigerator cupboards tables/chairs Dishes/pans/silver play food housecleaning set food containers telephones doll house/people doll house furniture dolls doll bed doll carriage iron/board highchair mirror dress-up rocker clothes play money	check for: splinters sharp edges
2. Conduct and supervise a dramatic play activity		

APPENDIX H

OHIO DIVISION OF VOCATIONAL EDUCATION

Definitions of Curriculum Terms

The following terms have been defined in order to facilitate communications and understanding in the curriculum development process. In most instances, terms are defined according to present-day authorities. In some cases, however, new terms have been popularized in conjunction with the current curriculum development thrust and, where applicable, a former term which has been replaced by a new term appears in paranthesis following the new term.

1. **Activity** — A very specific level in the hierarchy of a job. The activity is the smallest aspect of a skill, i.e., Job-Task-Step-**Activity**.
2. **Affective Domain** — An area in the classification of objectives. The affective domain included objectives that refer to values, attitudes, feelings, and emotions.
3. **Behavioral Objective** — A statement of instructional goals expressed in observable and measurable terms. Such a statement included the behavior, the conditions, and the standard of acceptable performance.
4. **Cognitive Domain** — An area in the classification of objectives. The cognitive domain included objectives that refer to mental and intellectual abilities.
5. **Course Outline** — A topical listing of the content of a specific course.
6. **Course of Study** — A comprehensive and detailed plan which shows the scope and sequence of content, and the organization and management of all instructional activities for a specific course in the curriculum.
7. **Cue** — A term used in Occupational Analysis. The signal or information which supplies the necessary data on which to make a decision.
8. **Curriculum** — An orderly arrangement of integrated subjects, activities and experiences which students pursue for the attainment of a specific educational goal.
9. **Decision** — A term used in Occupational Analysis. A part of a task which calls for a choice to be made.

10. **Duty** — (Block) — A large segment of an occupation made up of related tasks.

11. **Evaluation Strategies** — Methods of determining the success of an instructional process including the necessary planning to insure the accurate appraisal of learner achievement in relation to behavioral objectives.

12. **Formative Evaluation** — An appraisal process designed to determine if a student is progressing satisfactorily; if, in fact, he/she understands what is being presented during the presentation/demonstration phase.

13. **Grouping** — A series of tasks grouped together, organized for instructional purposes, and placed in a general time frame.

14. **Instructional Methodology** — The principles, methods and techniques for conducting the instructional process.

15. **Instructional Sequence** — The order in which instructional content is carried out.

16. **Instructional System** — An integrated combination of resources (students, instructors, materials, equipment, facilities, content, and time), techniques and procedures arranged in such a manner to assure the effective and efficient achievement of specified objectives.

17. **Job** — The composite of tasks or competencies which comprise the manipulative activities performed by an individual.

18. **Job Performance Requirements** — The knowledge and tasks required of people employed in a job, including the associated competencies and standards of performance.

19. **Lesson Plan** — A detailed teaching breakdown of the important points of a lesson arranged in the order in which they are to be presented. A lesson plan is a step by step analysis of how one intends to develop a lesson.

20. **Management Strategies** — Methods of organizing and manipulating instructional facilities, equipment, materials, students and time.

21. **Module** — A natural subdivision of a group of tasks or competencies and composed of lessons that would logically be taught in close sequence.

22. **Occupational Analysis** — A list of all the job tasks and all the related technical knowledge needed to function successfully in a given occupation.

23. **Perceptual Domain** — A non-documented area in the classification of objectives. The perceptual domain includes objectives that refer to utilizing the senses in analyzing and diagnosing problem situations.

24. **Performance Objective** — Same as a behavioral objective.

25. **Psychomotor Domain** — An area in the classification of objectives. The psychomotor domain includes those objectives concerned with skills in the

26. **Related Instructional Content** — (Related technical knowledge) — The information and understandings that a worker needs which are related to the manipulative tasks of the occupation.

27. **Rotation** — A process employed by a teacher which assures that all students have the opportunity to develop skills and gain experiences in all phases of an educational program on an organized basis.

28. **Scope** — The depth and breadth of the tasks and instructional content to be taught in a particular course.

29. **Sequencing** — The process of arranging the instructional content into the most appropriate order for efficient and effective learning.

30. **Skill** — (Operation) — A manipulative action performed while producing a finished product.

31. **Step** — A level within the hierarchy of a job, i.e., Job-Task-**Step**-Activity.

32. **Summative Evaluation** — An appraisal process designed to determine the degree of accomplishment or achievement on the part of the student in relation to the behavioral objective/s.

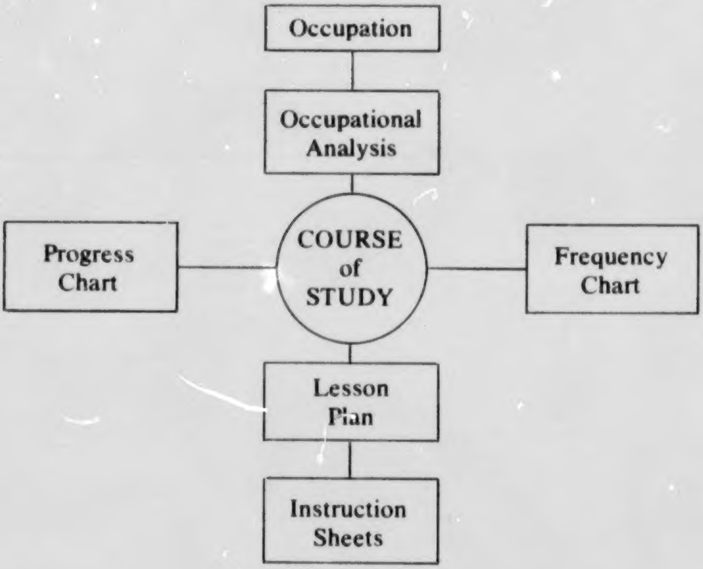
33. **Tasks** — (Skill or Occupation) — A unit of work performed in the completion of an assigned job, i.e., Job-**Task**-Step-Activity.

34. **Task Analysis** — (Occupational Analysis) — A specific and exact examination of the units of work in a task.

35. **Teaching Strategies** — Methods of directing and conducting the process of instruction in a given situation.

APPENDIX I

MODEL FOR INSTRUCTIONAL PLANNING


Occupation
Occupational Analysis
Progress Chart
COURSE of STUDY
Frequency Chart
Lesson Plan
Instruction Sheets

BIBLIOGRAPHY

1. Giachino, J.W., and Gallington, R. O., *Course Construction in Industrial Arts, Vocational and Technical Education*, 3rd Ed., Chicago, Illinois: American Technical Society, 1967.
2. Mager, Robert F., *Preparing Instructional Objectives;* Palo Alto, California: Fearon Press, 1967.
3. Shoemaker, Byrl R., *An Instructional System Design for: Vocational Education;* Columbus, Ohio: The Ohio State University Instructional Materials Laboratory, 1976.
4. Turabian, Kate L., *A Manual for Writers of Term Papers, Thesis, and Dissertations;* Chicago, Illinois: The University of Chicago Press, 1971.

Topic Analysis for Vocational Teacher Education

ADMINISTRATION OF VOCATIONAL EDUCATION

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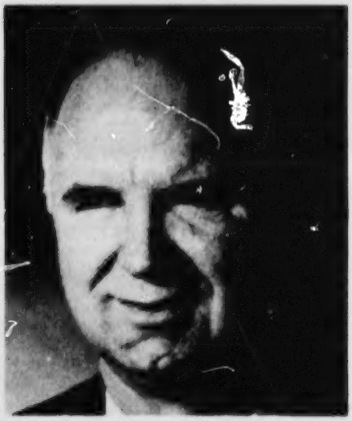
September 1978



CHARLES W. NICHOLS has been Director of the Division of Vocational Education at Kent State University from 1964 to the present. He was an instructor of trade and industrial education at the University of Cincinnati from 1956-1964 and taught machine shop at Marion Harding High School from 1952-1956. Prior to his professional education experience, he had occupational experience from 1942 through 1953 as an inspection foreman at Perry Fay Manufacturing Company in Elyria; apprentice toolmaker at General Industries Company in Elyria; repairman at General Motors Corporation; toolmaker at General Industries Company in Elyria; jig and fixture builder for North American Aviation in Columbus; toolmaker in Clark Metal Products in Marion; and machinist in Huber Manufacturing Company in Marion. He has written a number of professional articles on vocational education which have been published and has carried out research on a number of vocational education projects.

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ADMINISTRATION OF VOCATIONAL EDUCATION

NEED FOR THE COURSE

Society and its expectations of American education have experienced major reformation in recent years. The role of education as a major link between social needs and social improvement has become more fully recognized. Increased public appreciation of the values and benefits of all educational programs with particular emphasis on vocational education have changed the face of our contemporary educational scene.

Parents, taxpayers, educators, employers, and other groups now recognize the ability of vocational education to contribute to economic growth and personal benefit. Vocational education is more widely viewed as an investment in human capital and as a vital means of developing this nation's human resources. The growth of vocational programs and the concomitant increase in student enrollment confirm the importance of occupational preparation to both society and the individual.

The social expectations cited above make it incumbent upon members of the profession to provide high quality programs which enables each individual to become a contributing and responsible member of society. The movement towards increased quantity and quality of programs of vocational education places new demands and pressures on vocational administrators.

A major factor, in the success of vocational education at all levels, is in the preparation and performance of administrative personnel. The administration of vocational education consists of numerous complex and diverse functions. Current administrative responsibilities demand effective and efficient performance. Such performance calls for accurate, complete, and relevant preparation.

No longer can a vocational administrator function successfully on the basis of in-depth knowledge of vocational programming and vocational standards. In our modern complex world of administration, it is absolutely essential that administrative personnel be knowledgeable in a variety of related disciplines.

Additionally, future administrators, in this field, must prepare for their roles through a planned, organized program of study. Such study must include a knowledge of vocational education, knowledge of administrative principles, and the application of these principles to the efficient administration of vocational education programs. This course is designed to achieve this goal.

This course is intended for those individuals who are preparing to become vocational administrators at the local, state, or national level. It is assumed that individuals taking this course have experience as a vocational teacher.

Finally, there may be more content in this course outline than can be covered in a course. The degree of emphasis for each unit will depend on the course offerings in each institution.

COURSE OBJECTIVES

1. The student will explain the philosophy and mission of vocational education consistent with historical development and state and national trends.
2. The student will present a concept of leadership appropriate for vocational education according to the accepted literature in the field today.
3. The student will solve a minimum of five (5) assigned problems typical of vocational administration using an acceptable decision making process.
4. The student will develop an acceptable policy statement on an assigned topic based on contemporary principles of policy formation.
5. The student will determine the need for vocational education programs, at the state or local level, utilizing data and sources appropriate to the geographical region assigned.
6. The student will develop an organizational structure for an assigned program of vocational education based on contemporary principles and theories of organization.
7. The student will formulate a procedure for fiscal management including budget preparation and budget administration appropriate for a local or state level program of vocational education.
8. The student will develop a system for planning and organizing a program of vocational education at the local level which includes sound program planning principles and conforms to the criteria for a system.
9. The student will list the steps and explain each step in the process of local program operation.
10. The student will develop a model for personnel recruitment and development consistent with a structured set of goals.
11. The student will identify the components of instructional management and explain the administrative relationship involved.
12. The student will accurately prepare a working copy of all assigned records and submit a summary annual report for a given program.

13. The student will develop a system for evaluating the quality of a local program of vocational education including evaluative criteria and the evaluation process.

14. The student will determine the factors involved in professional negotiations including the negotiations process and contract administration.

15. The student will identify the relationships between federal, state, and local agencies in providing quality vocational programs.

COURSE OUTLINE

I. Rationale for Vocational Education
    A. Education and Work
    B. Need for Vocational Education
    C. Philosophy of Vocational Education
    D. Economic Rationale
    E. Educational Rationale
    F. Psychological Rationale
    G. Social Rationale
    H. Maximizing Individual Options
    I. Characteristics of Vocational Education
    J. Program Standards for Vocational Education

II. Leadership in Administration
    A. Leadership and the Administrative Process
    B. Need for Leadership
    C. Nature of Leadership
    D. Leadership Styles
    E. Leadership Behavior
    F. Major Areas of Leadership
    G. Ingredients of Good Leadership
    H. Authority vs Responsibility
    I. Motivation
    J. Roles and Responsibilities
    K. Leadership Development
    L. Application of Research

III. Determining Program Needs
    A. Analysis of National Manpower Needs
    B. Analysis of State Manpower Needs
    C. Conducting Local Community Manpower Surveys
    D. Conducting Student Interest Surveys

  E. Organization and Utilization of Advisory Committees
  F. Analysis of Data and Making Recommendations
  G. Need for Continuing Study

IV. Administrative Policy and Policy Making
  A. Definitions of Policy
  B. Policy Making Principles
  C. Policy Making Process
  D. Role of Federal Legislation
  E. Federal Government Involvement in Policy
  F. States Role in Policy Making
  G. Policy Making on the Local Level

V. Organizational Concepts
  A. Organizational Theory
  B. Organizational Characteristics
  C. Organization for Administration Efficiency
  D. Span of Control
  E. Organization for Effective Communication

VI. Organizational Structure
  A. Legal Structure
  B. Organization of Schools and School Systems
  C. Organizational Charts
  D. Administrative Matrix
  E. Organizational Patterns at Various Levels

VII. Fiscal Management
  A. Principles of School Finance
  B. Funding Sources for Vocational Education
  C. Funding Patterns in Vocational Education
  D. Legislative Provisions
  E. Budget Process
  F. Budget Preparation
  G. Budget Administration
  H. Budget Evaluation
  I. Staff Participation

VIII. Program Planning
  A. Levels of Planning
  B. Planning Stages
  C. Facilities Planning
  D. Determining Facilities and Equipment
  E. Facilities Management
  F. Basis of Program Planning

IX. Implementing and Operating Vocational Programs
  A. Preparing Facilities

    - B. Purchasing and Installing Equipment
    - C. Purchasing Supplies
    - D. Recruiting and Selecting Students

- X. Personnel Recruitment
    - A. Personnel Philosophy
    - B. Personnel Policy
    - C. Job Descriptions
    - D. Staff Positions and Functions
    - E. Locating Staff
    - F. Securing Applications
    - G. Interviewing and Screening Applicants
    - H. Selecting Competent Staff Members

- XI. Personnel Development
    - A. Orientation of New Staff
    - B. Planning and Conducting In-Service Training
    - C. Staff Development
    - D. Retraining and Improving Staff

- XII. Curriculum Development
    - A. Definition of Terms
    - B. Principles of Curriculum Planning
    - C. Curriculum Development Process
    - D. Factors in Curriculum Development
    - E. Models and Systems for Curriculum Development
    - F. Role of Occupational Analysis
    - G. Course of Study as an Instructional Tool
    - H. Staff Involvement
    - I. Administrative Functions in Curriculum Development

- XIII. Instructional Management
    - A. The Teacher as a Manager
    - B. Administrative Role in Improving Instruction
    - C. Supervision of Instruction
    - D. Teacher Evaluation
    - E. Teacher Education and Instructional Improvement
    - F. Building Morale and the Team Concept
    - G. Resources for Instructional Improvement

- XIV. Student Development Services
    - A. Philosophy of Student Services
    - B. Theories of Career Choice
    - C. Developing a Testing Program
    - D. Counseling as a Student Service
    - E. Admissions and Induction
    - F. Student Records

  - G. Financial Aids
  - H. Needs of Unique Student Groups
  - I. Student Services Resources
  - J. Student Recruitment
  - K. Job Placement Services

- XV. Human Relations
  - A. Human Relations Principles
  - B. Human Relations Factors
  - C. Analyzing Group Needs
  - D. Role of Human Relations in Administration

- XVI. Communications
  - A. Types of Communications
  - B. Communications Factors
  - C. Communications Barriers
  - D. Communication Channels
  - E. Communications as an Administrative Tool

- XVII. Decision Making
  - A. Institutional Policy and Decision Making
  - B. Decision Making Process
  - C. Forces Affecting Decision Making
  - D. The Problem Solving Approach
  - E. Management by Objectives

- XVIII. Public Relations
  - A. Analysis of Publics
  - B. Types Public Relations Activities
  - C. Public Relations Methods
  - D. Role of a Public Relations Calendar
  - E. Importance of Public Relations to Administrative Effectiveness
  - F. Sources of Public Relations Materials
  - G. Use of Advisory Committees

- XIX. Program Evaluation
  - A. Defining Evaluation
  - B. Types of Evaluation
  - C. Evaluation Criteria
  - D. Evaluation Process
  - E. Elements of Good Evaluation
  - F. Relationship Between Program Objectives and Evaluation
  - G. Organizing and Conducting Follow-Up Programs
  - H. Gathering, Compiling, and Analyzing Data
  - I. Program Improvement Based on Evaluation Results
  - J. P.R.I.D.E.

XX. Records and Reports
A. Types of Records and Reports
B. Opening Reports
C. Record Keeping
D. Compilation of Data
E. Data Analysis
F. Closing Reports
G. Annual Reports
H. Administrative Value of Records and Reports

XXI. Negotiations
A. Principles of Negotiations
B. The Industrial Model in Negotiations
C. The Negotiations Process
D. Negotiating the Master Contract
E. Administration of the Contract
F. Roles and Responsibilities of the Administrative Team

XXII. Future Directions in Vocational Administration
A. Changing Philosophical Concepts of Education
B. Dynamic Nature of Vocational Education
C. Emerging Concepts of Administration
D. The Administrator as a Change Agent
E. Growing Emphasis on Research

XXIII. Adult Education
A. Principles of Adult Education
B. Philosophy of Adult Education
C. Services to the Community
D. Types of Adult Programs
E. Organizing and Operating Adult Education Programs

XXIV. Planning for Reduction in Services
A. Program Analysis
B. Personnel Reductions
C. Legal Implications
D. Factors Involved in Reduction of Services

XXV. Legal Liability and Processes
A. Negligence
B. Liability
C. Legal Framework
D. School Records
E. Courts and Court Rulings
F. Role of Legal Counsel
G. Professional Behavior and the Law

INSTRUCTIONAL STRATEGIES

In the process of teaching this course, the following instructional strategies will be utilized.

1. The lecture method of instruction will be used to share information and experiences not included in the assigned readings.

2. Class discussion will be used to assist students in clarifying and synthesizing administrative issues and problems.

3. Oral reports are an important strategy for helping students organize and present information, ideas, issues, and plans.

4. Written reports represent an effective method of applying communication skills and summarizing data.

5. Panel discussions will be used to present a variety of points of view and to enable students to evaluate conflicting information and draw conclusions.

6. Guest lectures are appropriate as a means of sharing unique expertise, experience, or knowledge.

7. Case studies are a valuable method of providing simulated experiences which require administrative action or decisions.

8. Field visits will be utilized to help students obtain a first hand view of the actual administrative setting.

9. Administrative interviews are a viable procedure for gathering data from individuals who are on "the administrative firing line." This strategy tends to lend relevance to the study of administration.

10. Term papers will be used as a means of enabling the student to conduct research, interpret data, organize thoughts, and express positions.

11. Assigned readings are an important strategy which will help the student gather information and knowledge for authorities in the field of administration.

12. Another teaching strategy which will be utilized periodically, will be that of developing plans. Planning documents like those used by administrators will be used to provide a realistic experience assembling materials, gathering data, and presenting ideas.

13. Completion of records and reports is another strategy that will be used in the course. Actually report forms and actual record keeping forms will be used in realistic situations assigned to each student.

14. Simulation techniques will also be used. The simulation materials may be professor developed, commercially prepared, or student developed. Selected simulation materials will be assigned to each student based on background and individual need.

15. Another teaching strategy that will be used is written assignments. Specific assignments will be given and the assignment must be prepared in writing. The assignments will be used to provide realistic experiences, in a specific phase of vocational administration.

EVALUATION STRATEGIES

In an attempt to provide evaluative data dealing with teacher effectiveness and student achievement, both formative and summative evaluation techniques will be used. It is important to understand that for most effective evaluation a variety of evaluation strategies will be used. Each strategy listed below contributes to the total evaluation process in a special and unique way. The most complete and objective evaluation will include a combination of the strategies listed here.

1. Quizzes—The use of quizzes represents a type of formative evaluation that deals with certain levels of learning. While quizzes do not provide a complete source of evaluation, it does provide an important source.
2. Mid-terms — This is another type of formative evaluation. The midterm has the capability of reaching higher levels of learning and provides more in-depth evaluation than is generally possible with the quiz.
3. Questioning techniques — The questioning technique is a valuable source of formative evaluation. This technique provides an opportunity for personal exploration with the opportunity for appropriate follow-up of original answers if needed.
4. Assignments — All assignments will be evaluated, graded and returned. In this way they become an evaluative technique. The use of individual assignments provides an opportunity for feedback on a personal basis.
5. Class discussions — This technique provides a type of feedback which can be evaluated. This discussion can be based on any mode of instruction. This evaluation is formative in nature and represents a unique kind of evaluative data.
6. Case studies — Case studies will be used as an instructional strategy and will also serve as an evaluation strategy. The materials developed and completed relative to the case studies will be evaluated. This evaluation will serve as part of the formative evaluation process. The case studies are an important evaluation strategy because they provide an opportunity for practical application of the theoretical concepts and principles upon which the solution to actual cases are based.

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7. Problem solving — Structural problem solving situations will also be used as an evaluation strategy. The results of the problem solving activities will be evaluated and will serve as part of the formative evaluation. Problem solving represents a broad base for practical application.

8. Reports — Both oral and written reports will be used as part of the formative evaluation. This activity provides an opportunity for a student to assemble data, organize that data, and present the conclusions and/or recommendations to the instructor or other students in the class depending on the type of report assigned.

9. Term paper — The term paper required for the course will be evaluated, also, as a part of the formative evaluation. The term paper enables the student to explore a selected phase of administration to a greater depth than is possible in class. It provides assessment on the students ability to research a topic and to report that research in a scholarly manner.

10. Final examination — The final examination for the course will represent one aspect of the summative evaluation. The final examination provides an opportunity to evaluate student learning at a variety of levels of knowledge. The final examination can provide an opportunity for evaluation of acquired knowledge and/or performance evaluation.

11. Performance — If possible performance evaluation should be used. Performance evaluation provides an opportunity to measure the students ability to synthesize information, apply that information to either a typical or a real situation in terms of action. There can be two components to performance evaluation. One component deals with performance evaluation as part of the final examination or other course requirements. When used in this way, performance evaluation can be used as part of the course grade. The other component of performance evaluation deals with an evaluation of performance on the job, after the completion of the course. This provides a more complete assessment of the application of what has been learned. Obviously this evaluation can not be used as part of the course grade, but it is important feedback on the effectiveness of the course. Performance evaluation represents another facet of summative evaluation.

COURSE BIBLIOGRAPHY

1. Alfonso, Robert J., Firth, Gerald R., and Neville, Richard F., *Instructional Supervision – A Behavior System.* Allyn and Bacon, Inc., Boston, Mass. 1975.
2. Ash, Lane, Kempfer, Helen, and McNeil, Margaret, *Instruments and Procedures for the Evaluation of Vocational-Technical Education Institutions and Programs.* Washington, D.C., American Vocational Association, 1971.
3. Bennis, Warren G., *Changing Organizations.* New York, N.Y.: McGraw-Hill, 1966.
4. Bentley, William H., *Administering the Successful Vocational Education Program.* West Nyack, N.Y.: Parker Publishing Company, Inc., 1977.
5. Berman, Louise M., *Supervision, Staff Development and Leadership.* Columbus, Ohio: Charles E. Merrill, 1971.

6. Bice, Gary R., *Working With Opinion Leaders to Accelerate Change in Vocational-Technical Education*. Information Series No. 26, Columbus, Ohio: Center for Vocational and Technical Education, 1970.
7. Burt, Samuel M., *Industry and Vocational-Technical Education*. New York, N.Y.: McGraw-Hill, 1967.
8. Castetter, William B., *The Personnel Function in Educational Administration*. New York, N.Y.: MacMillan, 1971.
9. Chase, William, Browne, John, and Russo, Michael, *Basic Planning Guide for Vocational and Technical Education Facilities*. Washington, D.C.: United States Government Printing Office, 1966.
10. Division of Vocational Education, *An Instructional System Design for Vocational Education*. Columbus, Ohio: State Department of Education, 1976.
11. Division of Vocational Education, *Heart of Instruction*, State Department of Education, Columbus, Ohio, 1977.
12. Division of Vocational Education, *Local Education Agency Planning*. Columbus, Ohio: State Department of Education.
13. Division of Vocational Education, *Program Review, Improvement, Development and Expansion*. Columbus, Ohio: State Department of Education.
14. Division of Vocational Education, *Improving Supervision in Vocational Education*. Columbus, Ohio: State Department of Education, 1978.
15. Evans, Rupert N. *Foundations of Vocational Education*. Columbus, Ohio: Charles E. Merrill, 1971.
16. Getzels, Jacob W., and Guba, Egon G., "Social Behavior and the Administrative Process." *School Review*. 65 (1957): pp. 423-41.
17. Hale, James A., *Review and Synthesis of Research on Management Systems for Vocational and Technical Education*. Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, The Ohio State University, Information Series No. 51, December 1971.
18. Herrick, John H., McLeary, Ralph D., Clapp, Wilfred F., and Bogner, W. F., *From School Program to School Plant*. New York, N.Y.: Holt, Rinehart and Winston, 1956.
19. Little, Kenneth J., *Review and Synthesis of Research on the Placement and Follow-up of Vocational Education Students*. Columbus, Ohio: The Center for Vocational and Technical Education, 1970.
20. Lockett, Rutherford E., and Davenport, Lawrence F., *Review and Synthesis of Research on Vocational Education for the Urban Disadvantaged*. Columbus, Ohio: The Center for Vocational and Technical Education, 1971.
21. Malinski, Joseph F., *Planning Techniques for Local Programs of Vocational Education*. Columbus, Ohio: ERIC Clearinghouse of Vocational and Technical Education, Information Series 63, 1972.
22. McGivney, Joseph H., and Nelson, William C., *Program, Planning Budgeting System for Educators*, Volume I: An Instructional Outline. Leadership Series 18. Columbus, Ohio: The Center for Vocational and Technical Education, 1969.
23. Meckley, Richard F., *Planning Facilities for Occupational Education Programs*. Columbus, Ohio: Charles E. Merrill, 1972.
24. Schure, Alexander, "An Accountability and Evaluation Design for Occupational Education." *Educational Technology* 11, No. 3 (March 1971) pp. 26-37.
25. Stromsdorfer, Ernst W., *Review and Synthesis of Cost-Effectiveness of Vocational and Technical Education*. Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education. Information Series 57, The Ohio State University, 1972.
26. United States Department of Health, Education and Welfare, *Administration of Vocational Education–Rules and Regulations*. Vocational Education Bulletin, No. 1 Revised 1966. Washington, D.C.: United States Government Printing Office, 1966.
27. United States Department of Health, Education and Welfare, *Organization and Operation of a Local Program of Vocational Education*. Washington, D.C.: United States Government Printing Office, 1968.
28. Venn, Grant. *Man, Education and Manpower*. Washington, D.C.: American Association of School Administrators, 1970.
29. Wall, James E., *Review and Synthesis of Strategies for Effecting Change in Vocational and Technical Education*. Columbus, Ohio: ERIC Clearinghouse for Vocational and Technical Education. The Center for Vocational and Technical Education, 1972.

30. Wenrich, J.W., and Wenrich, R. C. *Leadership in Administration of Vocational and Technical Education.* Columbus, Ohio: Charles E. Merrill, 1974.
31. Wenrich, Ralph C., "Professional Development and Leadership Roles." *Contemporary Concepts in Vocational Education.* First Yearbook of the American Vocational Association, Washington, D.C.: American Vocational Association, 1971.
32. Wenrich, Ralph C., *Review and Synthesis of Research on the Administration of Vocational and Technical Education.* Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education. The Center for Vocational and Technical Education, 1970.
33. Wilson, Robert E., *Educational Administration,* Columbus, Ohio: Charles E. Merrill, 1966.
34. Young, Robert C., Clive, William V., and Miles, Benton E., *Vocational Education Planning: Manpower, Priorities and Dollars.* Research and Development Series 68. Columbus, Ohio: The Center for Vocational and Technical Education, 1972.

Topic Analysis for Vocational Teacher Education

SUPERVISION OF VOCATIONAL EDUCATION

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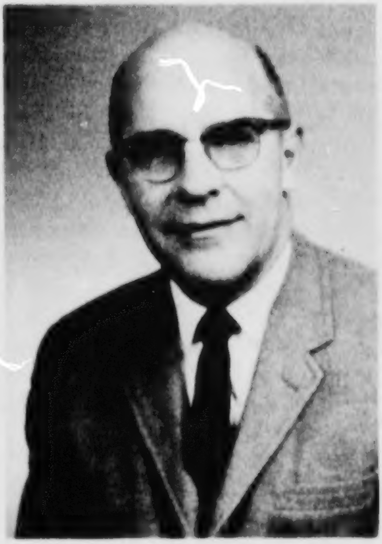

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SUPERVISION OF VOCATIONAL EDUCATION

NEED FOR THE COURSE

Supervision is a role — a set of duties, responsibilities, relationships and way of thinking — that exists in an organization. The vocational education supervisor's duties, responsibilities and relationships are different from those performed by administrators or teachers. In vocational education in Ohio, the supervisor's role has been customized to be one of improving instruction. In the fluid school environment, other transitory roles befall the supervisor — administration, guidance, instruction — but their passing requires resumption of the "coaching" activity.

An administrator functions most effectively when aided by able support personnel. The pyramidal design of the vocational administrative unit includes supervisors with distinctive provinces of responsibility. The recognized source of supervisors is the vocational faculty. Those aspiring for supervisory positions must prepare for that leadership role through an organized plan of study. Such a study must provide for current knowledge in the qualifying service area of vocational education; concomitant course work and teaching experience meet that need. This course of study seeks to provide guidelines that will enable the aspiring supervisor to develop a repertoire of skills, knowledges, perceptions and attitudes that distinguish one as a leader.

COURSE OBJECTIVES

1. The student will present a concept of leadership for vocational supervision consistent with accepted current literature.
2. The student will explain the major concepts of the bureaucratic model including bureaucratic dilemmas and unanticipated behaviors.
3. The student will explain the major concepts of at least five models for supervision that will compare the major strengths and weaknesses among the five models.
4. The student will assimilate concepts of supervisory models into an accepted supervisory style.
5. The student will use the Delphi technique (or modification thereof) in obtaining feedback from teachers.
6. The student will explain the differences among one-way communication, two-way communication and dialogue.
7. The student will explain the four major communicating styles.
8. The student will practice communication style flexing.

9. The student will explain teacher certification requirements consistent with the vocational service interpretations.

10. The student will present a plan for the recruitment and selection of teachers consistent with school system goals.

11. The student will submit a plan for the orientation of the staff.

12. The student will present a schedule of professional enrichment activities for the faculty.

13. The student will interpret school codes for the faculty recognizing rights and responsibilities of all parties.

14. The student will develop and interpret the instruments used in assessing teacher performance.

15. The student will explain a time budget plan to assure attention to improvement of instruction.

16. The student will demonstrate a required procedure for processing work orders, requisitions and pertinent communications.

17. The student will prepare a plan for the selection and utilization of craft advisory committees consistent with vocational education recommendations.

18. The student will program a teacher-assistance plan to develop the course of study in cooperation with the teacher educator and consistent with the Vocational Education Instructional Systems Design.

19. The student will identify no less than five community social agencies that can assist in solving school-society-student problems.

COURSE OUTLINE

I. Leadership in Supervision

    A. Definition of Leadership
    B. Need for Leadership
    C. Nature of Leadership
    D. Leadership Styles
    E. Leadership Theories
    F. Leadership Development

II. The Bureaucratic Model

    A. The Ideal Bureaucracy
    B. Characteristics of Bureaucracy

C. Bureaucratic Dilemmas
D. Unanticipated Behaviors

III. Supervisory Models

A. Historical Perspective
B. Scientific Management Model
C. Human Relations Model
D. Behavioral Models
E. The Delphi Technique
F. Supervisory Styles

IV. Communications

A. One Way Communications
B. Two Way Communications
C. Dialogue
D. Communication Theories
E. Communication Styles
F. Style Flexing

V. Supervisory Roles and Functions

A. Instructional Management
  1. Guide staff in selecting and using effective instructional strategies.
  2. Establish and implement a curriculum design that will achieve school's instructional goals.
  3. Establish the instructional program entry and completion requirements.
  4. Establish student rules and policies.
  5. Promote the integration of vocational student organizational activities into instructional program.
  6. Approve selection of instructional materials and equipment.
  7. Oversee the work of teachers.
B. Personnel Management
  1. Contribute to formulation of personnel policies.
  2. Assess program staffing requirements.
  3. Recruit and interview potential staff.
  4. Counsel and advise staff on professional matters.
  5. Plan and conduct staff meetings.
  6. Observe and evaluate staff performance.
  7. Keep staff informed through bulletins or meetings.
  8. Recommend staff promotions and dismissals.
  9. Interpret and apply certification requirements.
C. Staff Development
  1. Assess staff needs.

2. Counsel with staff regarding personnel development needs and activities.
3. Conduct workshops and in-service programs for professional personnel.
4. Arrange for workshops and in-service programs for professional personnel.

D. Program Planning, Development and Evaluation
   1. Direct occupational task analysis, as required for use in curriculum development.
   2. Direct the identification of entry level requirements for jobs.
   3. Approve courses of study.
   4. Implement local board and administrative policies.
   5. Interpret and apply relevant state and federal legislation.
   6. Develop plans for evaluating instructional programs.
   7. Participate in PRIDE review.
   8. Plan, institute and analyze student follow-up studies.
   9. Assess student progress.

E. School-Community Relations
   1. Coordinate use of craft advisory committees.
   2. Develop working relations with employers and agencies.
   3. Participate in school organizations.
   4. Participate in community organizations.
   5. Promote good relations in entire school staff.
   6. Encourage staff participation in community, civic, service and social organizations.
   7. Develop materials to promote vocational programs.

F. Professional Relations and Self-Development
   1. Maintain ethical standards expected of a professional educator.
   2. Represent teacher interests and concerns to administrators.
   3. Interpret administrators' concerns to teachers.
   4. Develop effective interpersonal skills.
   5. Read and use information from professional journals and reports for self-improvement.
   6. Develop cooperative problem-solving and decision-making skills.

G. Facilities and Equipment Management
   1. Assess for changes in space requirements.
   2. Procure supplies and eqiupment.
   3. Develop and implement an equipment and supply inventory program.
   4. Establish preventive maintenance program.
   5. Interpret and apply health and safety laws and regulations.
   6. Develop and implement safety programs.

    7. Establish and oversee a security program.
- H. Business and Financial Management
    1. Prepare and regulate program budgets.
    2. Approve requisitions and work orders.
    3. Prepare local and state reports.
    4. Establish a personal activity schedule to promote efficiency.
- I. Student Service
    1. Participate in student recruitment activities.
    2. Interpret and apply student rights, laws and regulations.
    3. Assist staff in student guidance service.
    4. Utilize school and community agencies for student well-being.

INSTRUCTIONAL STRATEGIES

The process for teaching this course will include the following:

1. The lecture method of instruction will be utilized to present information not readily available in assigned readings and for the purpose of stimulating discussion on divergent points of view.

2. Role playing will be utilized for the purpose of providing practice to gain skill in the use of the Delphi technique and in communication style flexing.

3. Case studies will be used to assist in providing practice in decision-making techniques.

4. Field trips will be used to permit observation of different physical and organizational alignments.

5. Term papers will be required as a means of enabling the student to conduct research and interpret data.

6. Assigned readings will be utilized to help the student assimilate new information.

7. Class discussion will be used for the purposes of clarifying divergent points of view and for synthesizing supervisory problems.

8. Specific written assignments will be utilized for the development of record keeping techniques and to provide other actual or simulated supervisory functions.

EVALUATION STRATEGIES

The ever-present question, "How am I doing," in the minds of the teacher and the student necessitates continuing evaluation of teacher and student accomplishment. Therefore, evidence of formative and summative evaluation is included in the course. The several strategies listed will provide an evaluation package.

Assignments — In an effort to stimulate participation in leadership development, assignments will be given to allow individuals to provide evidence of comprehension and understanding. Prompt grading and return will encourage adjustment in a more personal way.

Quizzes — Will be used to provide an evaluation tool that serves well in checking retention of knowledge.

Midterm exam — Will be an interim measure to determine the student's ability to utilize information and inform the instructor of adjustments to be made.

Class discussion — Will permit evaluation of several facets of leadership behavior and may reveal areas of needed emphasis.

Reports — Written and oral reports will provide an insight into the student's ability to gather data, organize the presentation and share conclusions and recommendations with peers.

Term paper — the term paper will be an integral part of the learning experience. It will provide an opportunity to the student to display skills and abilities in research and writing.

Case histories — The discussion engendered by reviewing actual supervisory problems will enable students to develop problem-solving skills and provide a further means of assessing the candidate's growth.

Final — A final examination will constitute a step in summative evaluation. This evaluation will be designed to utilize accumulated knowledge and experience.

BIBLIOGRAPHY

Argyris, Chris. *Increasing Leadership Effectiveness.* New York: John Wiley & Sons, 1976.

____________. *Understanding Organizational Behavior.* Homewood, Illinois: The Dorsey Press, 1960.

____________. *Personality and Organization.* New York: Harper and Row, 1958.

Barnard, Chester I. *The Functions of the Executive.* Cambridge: Harvard University Press, 1962.

Best, Veiva, and others. *Guidelines for Local Supervisors of Vocational Programs.* In cooperation with the Ohio Department of Education, Division of Vocational Education, 1977.

Bledsoe, John L. "Why, When and How to Use Each of Your Four Communicating Styles," *Training*, March 1976.

Borden, George A. *An Introduction to Human Communication Theory.* Dubuque, Iowa: W. C. Brown Company, 1971.

Carver, Fred D., and Thomas J. Sergiovanni, eds. *Organizations and Human Behavior: Focus on Schools.* New York: MCGraw-Hill Book Company, 1969.

Danziger, Kurt. *Interpersonal Communication.* 1st ed. Oxford, New York: Pergamon Press, 1976.

Dull, Lloyd W., ed. *Improving Supervision in Vocational Education.* Columbus, Ohio: Ohio Department of Education, Division of Vocational Education, 1978.

Dunn, J. D., Elvis Stephens, and J. Roland Kelley. *Management Essentials: Resource.* New York: McGraw-Hill Book Company, 1973.

Fayol, Henri. *General and Industrial Management.* London: Sir Issac Pitman and Sons, Ltd., 1949.

Getzels, Jacob W., James Lipham, and Roald Campbell. *Educational Administration as a Social Process.* New York: Harper and Row, 1968.

Gouldner, Alvin W., ed. *Studies in Leadership.* New York: Harper and Row, 1950.

Griffiths, Daniel E., ed., *Behavioral Science and Educational Administration.* Sixty-third Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1964.

Gulick, Luther, and Lyndell Urwich, eds. *Papers on the Science of Administration.* Institute of Public Administration, Columbia University, Paper XI, 1937.

Halpin, Andrew W., ed. *Administrative in Education.* New York: The Macmillan Company, 1958.

———. *The Leadership Behavior of School Superintendents.* Columbus, Ohio: The Ohio State University, 1956.

Henderson, A. M., and Talcott Parsons, trans. *The Theory of Society and Economic Organization,* by Max Weber. Glencoe, Illinois: The Free Press, 1947.

Koopman, G., Alice Miel, and Paul Misner. *Democracy in School Administration.* New York: D. Appleton Century Company, 1943.

Lane, W. R., Ronald H. Corwin, and W. G. Monahan. *Foundations of Educational Administration.* New York: The Macmillan Company, 1970.

Loye, David. *The Leadership Passion: A Psychology of Ideology.* San Francisco: Jossey-Bass Publishing Company, 1977.

Mager, Robert F., and Pepter Pipe. *Analyzing Performance Problems.* Belmont: Fearon Publishers, 1970.

March, James A., and Herbert A. Simon. *Organization.* New York: John Wiley and Sons, 1958.

Marks, James R., Emery Stoops, and Joyce King-Stoops. *Handbook of Educational Supervision.* Boston: Allyn and Bacon, Inc., 1973.

Maslow, Abraham H. *Motivation and Personality.* New York: Harper and Brothers, 1954.

McGregor, Douglas. *The Human Side of Enterprise.* New York: McGraw-Hill Book Company, 1960.

Moehlman, Arthur B. *School Administration. 2d ed. Boston: Houghton-Mifflin Company, 1951.*

Owens, Robert G. Organizational Behavior in Schools. Englewood Cliffs: Prentice-Hall, Inc., 1970.

Stogdill, Ralph M. *Leadership Abstracts and Bibliography, 1904 to 1974.* Columbus, Ohio: College of Administrative Science, Ohio State University, 1977.

Topic Analysis for Vocational
Teacher Education

EVALUATION OF VOCATIONAL EDUCATION PROGRAMS

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Department of Education, Division of Vocational Education —	PRIDE Review program materials

Preface

This paper is directed toward meeting the need for the improvement and coordination of courses being taught in *Program Evaluation* at the college level within the Ohio vocational education system. Specifically, the material is presented to serve as the structure for the course content on program evaluation. In turn, it is designed to help the teaching, supervisory, administrative and ancillary personnel of vocational education to design and conduct evaluation activities. This paper may serve as a guide to the evaluation task for practicing educators, and prospective educators. The course on evaluation should provide for the development of the competencies necessary for effective evaluation of vocational program.

Within this paper, vocational program refers to educational programs of secondary and post-secondary institutions. However, for the most part, this author will refer to secondary programs. At both levels, evaluation is an integral part of any decision-making process.

Evaluation of formal Vocational Education has taken place since the very inception of Vocational Education. However, only in recent years has comprehensive evaluation methodology become intensified. It has come about as a natural component of our educational structure due to the expansion of the role of occupation-related education and structured evaluation. The broadened scope includes follow-up of graduates of programs. Evaluation and follow-up are by no means synonymous, and this should not be a vocational educator's misconception.

Evaluation can take several structured model configurations depending on the purpose for making the evaluation and the guidelines set forth by those responsible for the assessment. In vocational education, certain guidelines of national and state legislatures are reflected in the provision of legislation requiring evaluation of (federal) and (state) supported vocational programs to determine the influence or impact of the programs on the development of the individual enrollee based upon predetermined needs, values, objectives and goals. Only recently, vocational educators are being asked to show a relationship between program participation and program participant development—accountability. All service areas of vocational education and programs are subject to this evaluation endeavor as a legislative directive.

Be that as it may, this paper has been designed primarily to give the vocational educator specific and practical competencies on how to cope with answers to the following essential *questions* to successfully evaluate vocational programs:

1. What is the present program status?
2. Where is the program headed?
3. What is taking place in meeting the program objectives?
4. How is goal attainment assessed?
5. What is the product - outcome?
6. How are evaluation results handled?

These questions are paramount in the program review, improvement, development and expansion — PRIDE EVALUATION.

EVALUATION OF VOCATIONAL EDUCATION
INTRODUCTION

National study groups have in the past been encouraged to review the role and function of vocational education in the educational process and some have made recommendations for redirecting the evaluation system. The pattern of vocational education in Ohio, and more specifically in the local education agencies (LEA) of Ohio, has been strongly influenced by the recommendations of studies conducted in Ohio and subsequent results have affected national and state legislation. During the period of the past fifteen years there is a shared concern on the part of teacher-educators, supervisors and administrators of vocational education for answering the question of "How can we be accountable for the outcome of what we produce and accomplish to match the needs, values, and expectations of individuals and society?" The content of Evaluation Courses, at the college level, may not provide the answers or the system for developing the competencies needed for educators within our educational system. Therefore, continuity of our Evaluation Course at the college level would focus on processes for seeking the kind of data which will provide answers to individual and societal values with implications for the present and future.

The recognized success of vocational education is a factor that has caused most educators and citizens to center on accountability. Melvin Barlow made reference in his bicentennial review of vocational education that the greatest influence on vocational education has been legislation provided by the Congress. This influence, along with state legislation, has currently focused on the use of information in vocational education to improve data-based program planning and program improvement. The concept is that better data will result in better decisions, and that desirable decisions will ultimately improve the quality of vocational education. Concurrent with emphasis on the need for the data to support desirable decision-making is the need for an evaluation course at the college level that will ensure training of teachers, supervisors and administrators to carry out the intent of the legislation and the fulfillment of education. These two perspectives 1) the need for information to support improved decision-making, and 2) the need for support of an evaluation course, along with their complex interplay, provide the rationale for standardization of evaluation of product outcome in Ohio. The affects of standardized evaluation of product outcome will extend beyond the halls of the university. Vocational educators in Ohio would be facilitated by the availability of such efforts to access components of the vocational programs with credability of a process used to generate the data capable to document progress and needs of individuals and society. It could increase vocational education's competitive position with respect to program funding.

Not only will such a course enhance accountability of trained personnel and product output, but one would anticipate that such a decision-oriented evaluation course would be capable of providing information that enhances the quality of administration of vocational education at the state and local level. Moreover, one could argue that utilization of such a course offering could improve evaluation of vocational programs and identify issues of great significance to be solved and in turn, strengthen our position in the educational system.

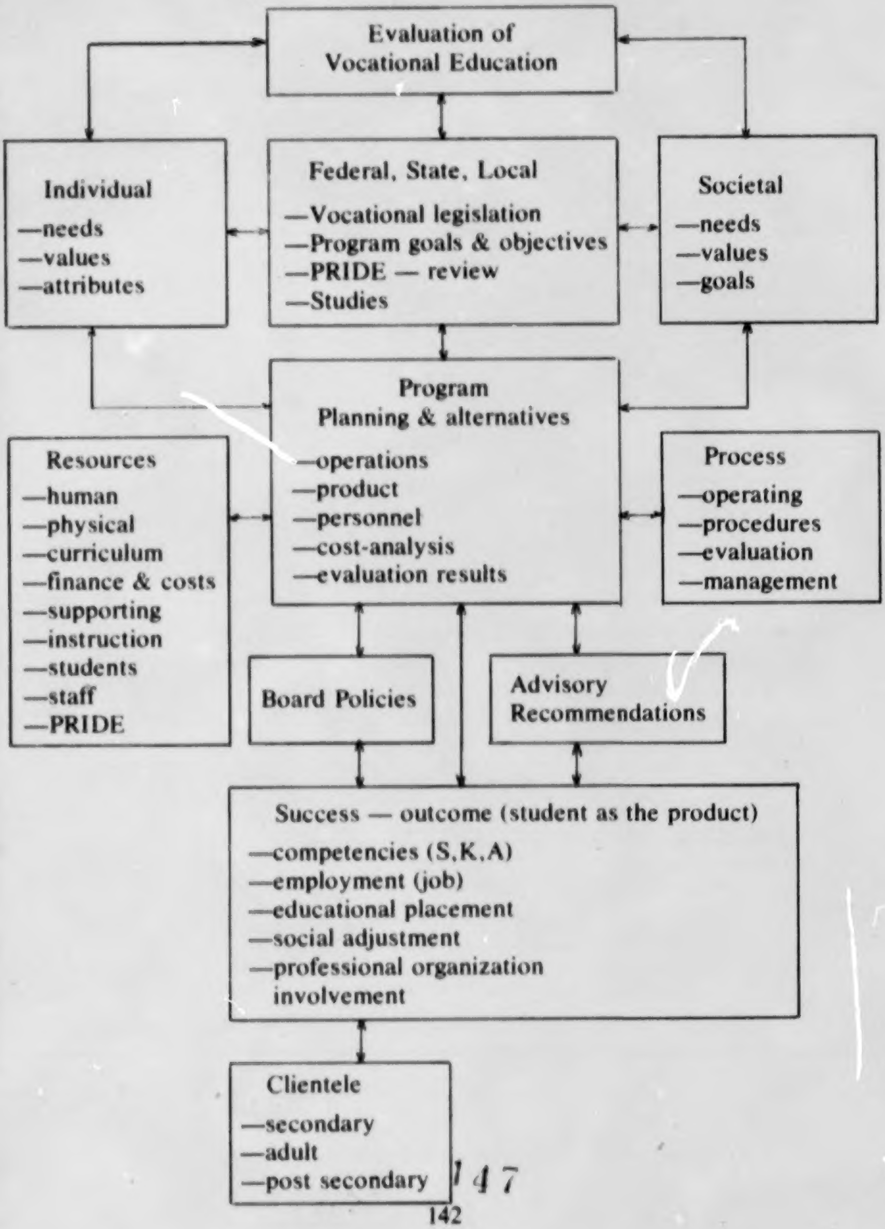
Decision-making at the local program level is frequently influenced more by political considerations than by competencies obtained by educators in an evaluation course or even data to drive rational planning models. However, the need for program evaluation is often based on community needs. Therefore, given the structure for an evaluation course and the impact through stated objectives and strategies for programming and product outcome, the question of immediate concern in "What can be done, if anything, to increase the effectiveness of decision-makers?" To say that this author has the only answer would be presumptuous. He can only share with you some views and notions as to how the evaluation course might be outlined and coordinated with objectives and strategies to modify the existing utilization of pre-service and in-service training for educators.

A system of evaluation will ensure the coordination of evaluation efforts and maximize the utilization of findings. A well planned system should define informational needs, activities, resources, policies that describe the system. After a review of evaluation models, this author relates the system components in a somewhat different way to aid the educator in visualizing the concept of program evaluation. In this model, given in Figure 1, Asche begins at the top with agency input as a base with individual and societal needs, values, goals and attributes input assessment. The input from the individual and society are then translated into objectives that are specified when the program's components are evaluated by the process and resource determination on the program which is the focal point in the system. Board policies and advisory recommendations aid in the program evaluation. Finally, the product outcome of the program relates back to the program goals and objectives and societal individual needs. It is intended that this model serve as a planning model to be employed when developing and coordinating a course on the Evaluation of Vocational Education.

Figure 1

Evaluation

Integral Part of Decision-Making Process


Evaluation of Vocational Education
Individual
—needs
—values
—attributes
Federal, State, Local
—Vocational legislation
—Program goals & objectives
—PRIDE — review
—Studies
Societal
—needs
—values
—goals
Program Planning & alternatives
—operations
—product
—personnel
—cost-analysis
—evaluation results
Resources
—human
—physical
—curriculum
—finance & costs
—supporting
—instruction
—students
—staff
—PRIDE
Process
—operating
—procedures
—evaluation
—management
Board Policies
Advisory Recommendations
Success — outcome (student as the product)
—competencies (S,K,A)
—employment (job)
—educational placement
—social adjustment
—professional organization involvement
Clientele
—secondary
—adult
—post secondary

COURSE OBJECTIVES

The suggested course objectives support the course outline. The student will be able to:

1. Explain the perspective, rationale parameters for the evaluation of vocational education programs.
2. Synthesize the objectives and approved practices for evaluating vocational education programs for a comprehensive high school system, an area vocational center and for a post-high school center.
3. Describe the objectives and component parts of approved systems of evaluation including Ohio's Program Review Improvement Development and Expansion (PRIDE).
4. Identify and interpret priority management elements for strengthening and sustaining a given vocational program.
5. Utilize evaluation criteria on product outcome measures, and for the evaluation of school personnel.
6. Interpret, compare and summarize data collection and reports on evaluation.
7. Apply management techniques to all aspects of the total evaluation system utilizing external and internal resources.
8. Compile a cost-analysis report on a given vocational program to supply data for budget preparation and program improvement.
9. Analyze results of evaluation studies *to be able* to utilize recommendations *in order to:* a) better evaluate sources and kinds of information made available b) better utilize the communication of vital information to the various involved groups and individuals throughout the educational system.
10. Compile a progress and final report with descriptive items and summary.

COURSE OUTLINE

While there can be no absolute certainty that any competency based instruction chosen can stand the test of time, it seems certain that the structured outline presented on the pages that follow can be competency based for adequate programmed instruction. Instruction on evaluation results is integrated within major component parts of the course outline and is handled separately in more detail at the ending of the course structure outline.

OHIO

Department of Vocational Education
Course Title: Evaluation of Vocational Education
Course Content Outline:

I. An Introduction to Evaluation
  A. Perspective
    1. Purpose
    2. Complexities
    3. Framework
    4. Types of evidence
    5. Values
    6. Outcome measures
  B. Rationale
    1. Need
    2. Principles and concepts
    3. Function
  C. Evaluation Defined
    1. Compliance
    2. Components
  D. Scope
    1. Program inclusions
    2. Process

II. Course Objectives
  A. Performance
    1. Affective
    2. Cognitive
    3. Psychomotor
    (same as those listed in the course objectives)

III. The Evaluation System—Program Evaluation
  A. Overview
  B. Rationale
    1. Principles
    2. Concepts
    3. Functions
  C. Objectives
    1. Type
    2. Analysis
    3. Design
    4. Internal input
    5. External input
  D. Methods of Evaluation
    1. Approaches
    2. Coordination

        3. Instrument
        4. Assessment
        5. Reporting
    E. Strategies for operation
        1. Development
        2. Written procedural plan
    F. Decision making
        1. Process
        2. Resources
        3. Alternatives
    G. Product Outcomes
        1. Measurement
        2. Feedback
    H. Results
        1. Interpretation
        2. Utilization
        3. Communication

IV. Product Outcome Measures
    A. Classification of Measurement
        1. Achievement
            a. Cognitive
            b. Affective
            c. Psychomotor
            d. Perceptual
        2. Interest
        3. Human relations
            a. Attitude
            b. Personality
        4. Role of Measurement
            a. Formative
            b. Summative
            c. Ultimate
    B. Student Attainment
        1. Expectations
        2. Career choices
        3. Placement
        4. Competency attainment
        5. Job up-grading
        6. Formative and summative assessment
    C. Follow-up Assessment (Method)
        1. Expectations
        2. Collection of data
        3. Instruments
        4. Administration of follow-up study

        5. Processing data and results
        6. Utilizing results
    D. Use of Consultative Team Evaluation
        1. Purpose
        2. Consultative personnel
        3. Methods
        4. Approaches
        5. PRIDE Review
    E. Utilization of Results
        1. Impact
        2. Acceptance
        3. Change
        4. Application

V. The Evaluation of Personnel
    A. Identification
        1. Administrative
        2. Supervisory
        3. Instructional
        4. Supportative
        5. Advisory
    B. Role
        1. Responsibilities
        2. Structure
    C. Assessment Objectives
        1. Effectiveness
        2. Accountability—criteria
        3. Decision-making
        4. Selection
        5. Secondary and adult
    D. Methods of Evaluation
        1. Procedures and approaches
        2. Staff coordination
        3. Outside Team
        4. Assessment analysis
        5. Reporting

VI. Cost-analysis Assessment
    A. Overview
        1. Systematic plan
        2. Function
        3. Use
    B. Objectives
        1. Curriculum and instruction
        2. Facilities and equipment

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    3. Instructional Staff
    4. Students
    5. Supportive staff
    6. Process
    7. Product
  C. Analyzing Costs
    1. Developmental
    2. Operational
  D. Establishing Cost Benefits
    1. Intermediate
    2. Economics
    3. Noneconomic
    4. Benefactor
  E. Measurement Control
    1. Formative
    2. Summative
  F. Cost Effectiveness Assessment (Methods)
    1. Product
    2. Limitations
    3. Approaches
    4. Tasks for the activity
    5. Team plan
    6. Cost accounting instrument
    7. Collection of data
    8. Assessment analysis
    9. Summarize data
    10. Reporting
  G. Assessment of Auditor Report
    1. Approaches
    2. Feedback process
    3. Feedback techniques
    4. Reporting
  H. Utilization of Results
    1. Impact
    2. Acceptance
    3. Change
    4. Transition period
    5. Special needs
    6. Application

VII. Evaluation Results Utilization
  A. Impact—outcome measures
    1. Judgments
    2. Compliance to criteria and standards
    3. Accountability

B. Acceptance
   1. Interest
   2. Attitude
   3. Values
C. Change
   1. Quality of program
   2. Revelance of program
   3. Process
   4. Product
   5. Services
   6. Strengths and weaknesses
D. Transition Period
   1. Individual
   2. Limitations
E. Special Needs
F. Application of findings
   1. School program improvement
   2. Communications

PROGRAM EVALUATION

The focal point in the recommended system, stated in the introduction, is the program and its components to be evaluated. The process for teaching an evaluation course should center upon the approaches for evaluating the components of the program. With this in mind, program evaluation, in this paper, is directed toward explaining these components as they appear in the topical outline for instructional purpose.

Each component of the program to be evaluated is explained in the following pages in terms of purpose, *student* objectives and *instructional* strategies. This approach should ensure the coordination of evaluation efforts and maximize the utilization of findings for program improvement. In addition, a sample evaluation instrument with program components is included in Appendix A.

Operations

Internal program operations are the educational process of the total activities designed to provide program instruction. In short, this component involves the assessment of the operational plan for the preparation of students for entry level employment and upgrading, estimating supply and demand for employment, and utilization of resources. It is recommended that program operations be applied to the total Local Education Agency (LEA) for evaluation purpose. Evaluation should take place with given vocational service areas and within taxonomy areas. Internal and external measurement on evaluation should focus on the student objectives that follow.

Student Objectives

There are six basic objectives for a systematic and functional program evaluation. They are:

(1) To assist the development of an operational plan for a program evaluation system.

(2) To orient educators to program-directed evaluation.

(3) To elicit accountability of commitment (internal and external).

(4) To identify priority activities which will strengthen and improve program offerings.

(5) To gather and recycle sufficient input data to enhance occupational program planning and decision making.

(6) To assist in identifying program areas that need expansion within occupational offerings.

Instructional Strategies For Developing An Evaluation System

(1) Hold joint-staff meetings — teacher educator, supervisory personnel, LEA representatives.

(2) Establish a team for planning and coordinating the evaluation system.

(3) Schedule and activate meetings of the planning team.

(4) Formalize the rationale and scope for the evaluation system.

(5) Develop evaluation statements (key questions).

(6) Prioritize appropriate program-directed evaluation activities.

(7) Identify resources.

(8) Communicate constraints to the evaluation system.

(9) Adjust program-directed evaluation activities.

(10) Establish leadership roles and personnel.

(11) Establish target dates for activity data input.

(12) Project the evaluation system in the form of a written device and management tool.

Product Assessment

For the most part, product assessment is focused on the successes achieved by the student and/or graduate. Some form of measuring student achievement has been a part of vocational programs since the beginning of formal vocational education; however, it involved achievement in instructional programs and rarely was a measurement of pre-determined performance objectives and student follow-up.

This component of program evaluation has been aimed at increasing the use of student performance objectives which have been pre-determined by instructors and administrators. Secondly, this component focuses upon assessing student follow-up. The follow-up is designed to collect data on placement, process review, and total program profile data. The data available from an adequate assessment of student achievement and values judgments about the program can become valuable input to program improvement. Two examples of product assessment instruments are found in Appendix B. Other instruments are needed and can be found in use today with LEA's, or they can be developed.

The time frame for implementing and carrying out to completion this component of evaluation may become extensive. A one-year assessment, followed by two and five year studies, is the recommended approach to utilize data information to product results in program improvement.

Student Objectives

(1) To provide a comprehensive approach to the evaluation of student achievement and follow-up.

(2) To assess career development of the individual based upon student interest and abilities compared to occupational job opportunities.

(3) To identify areas of competencies needed by staff in the principles, concepts and methods of assisting student achievement and follow-up.

(4) To assess the opportunity for special needs students.

(5) To determine the adequacy of the educational or training program in preparing individuals for job entry.

(6) To determine the adequacy of ancillary services such as guidance counseling and placement.

(7) To determine the adequacy of preparation for entry into advanced training such as community college, industrial training programs, university or adult education programs.

(8) To determine the immediate demand for positions within the community.

(9) To determine the mobility of program graduates.

(10) To obtain suggestions for program improvement from former students.

(11) To establish scope and effectiveness of the youth and adult organizational activities.

(12) To assist students in selecting courses for a planned career or upgrading program.

(13) To analyze current instructional materials.

Instructional Strategies for Program Product Assessment

(1) Prepare staff for special emphasis on product assessment by assessing student objectives attainment.

(2) Develop assessment objectives and criterion statements.

(3) Formulate procedural information sheets for evaluation team members (include assessment techniques).

(4) Identify and/or develop evaluation instrument(s).

(5) Develop a plan for instrument administration (achievement or survey).

(6) Identify and/or develop student performance record forms.

(7) Write conclusions, recommendations, and tabulate costs data.

(8) Develop a system for reporting and communicating results.

(9) Utilize results.

Personnel Evaluation Approach

The evaluation approach for assessing instructional staff and supportive personnel has been developed to stimulate position professional growth and development of the individual. This system emphasizes a required cooperative commitment from both the instructional, supervisory, and administrative staffs. Moreover, the long-range implications and values of a systematic assessment process can make valuable contributions toward improving instructor performance and administrative articulation. The personnel evaluation approach is based upon the concept that self-assessment is vital to professional growth. This author points out the need to identify instructor *performance expectations* in reference to program goals and/or objectives. The system helps individuals identify strengths and weaknesses. In addition, it provides a source of data for in-service staff workshops. The success of this approach depends on input from instructors and administrators at various development stages. Each stage should entail three emphases — pre-assessment, conference assessment, and post-assessment conference. School Board endorsement and local union endorsement are essential for total valuation attainment. Wentling's evaluation model on "Instructor Evaluation Instrument" not only relates to providing decision-makers with descriptions, but also with judgments, both based on three bodies of information (1) Pre-assessment (2) Observation assessment (3) Post-assessment. An example of his instrument is found in Appendix C.

Student Objectives

(1) To improve instructor performance.

(2) To ensure instructor accountability.

(3) To collect data in determining in-service needs.

(4) To articulate working relations among staff.

(5) To develop short and long range staff development plans.

Instructional Strategies For Developing A Personnel Evaluation Approach

(1) Hold joint-staff meetings — teaching staff, administration, supervisory and local union official.

(2) Establish a team for planning and coordinating the evaluation approach.

(3) Develop rationale and guidelines.

(4) Develop instruments.

(5) Establish assessment sessions.

(6) Implement system.

(7) Revise instrument.

(8) Utilize results — In-service meetings, etc.

(9) Articulate professional improvement.

Cost Analysis

Cost analysis is an essential component of any evaluation system and course taught on evaluation. It is desirable way of accounting for the returns, both monetary and nonmonetary, of investments for the purpose of improving program planning and management in the decision making process.

The program cost information will focus upon the elements of administration, instructional and supportive services and salaries; plant; fixed charges; capital outlay; transfer accounts and special activities. This data will be gathered from existing records and collectable measures by utilizing approved data collecting procedures. Included in this analysis are the supporting costs for guidance and administrative services.

Student Objectives

(1) To assist in programming and/or managing alternatives that relate to choices in programs and supportive services.

(2) To justify and be accountable for expenditures of local, state and federal funds.

(3) To aid decision making regarding resource allocations.

(4) To minimize expenditures of high cost/low incidence programs.

(5) To organize optimum scheduling/sequencing.

(6) To promote adequate use of facilities.

(7) To determine the feasibility of financing the establishment and/or development of a new program.

(8) To establish cost benefits.

Instructional Strategies for Developing Cost-Analysis Assessment

(1) Hold joint-staff meetings — teacher educator, supervisory personnel, LEA representatives.

(2) Establish a team for planning and coordinating analysis assessment.

(3) Schedule and activate meetings.

(4) Formalize the rationale and scope.

(5) Develop and/or select cost accounting instruments.

(6) Collect cost data.

(7) Summarize and analyze cost data.

(8) Identify and compare existing outcome information.

(9) Relate cost information to outcome information.

(10) Prepare a written report.

(11) Communicate report.

(12) Utilize results for program revision and improvement.

(13) Monitor for the activities directed toward program improvement.

Evaluation Results Utilization

Qualitative professional judgments regarding the utilization of evaluation results for the improvement of vocational programs are probably as numerous as follow-up instruments and studies buried in the reports of national and state educational accreditation reports. However, due to the Ohio PRIDE Review program, a great deal of interest and progress has been centered on vocational education programs. This author is giving special recognition to this evaluation effort, but with a *major* thrust on the compliance to and interpretation of outcome measures with criteria against which vocational education should be held accountable.

Not only is the educator concerned about accountability to students and others, but legislators and board members are concerned about accountability to their various constituencies. Results can be accounted for by many different audiences provided that *benefits* are related to the achievement of goals linked to values. Therefore, it seems reasonably evident that values (individual, societal) for all audiences include an employable, rather than other types, product — outcome. Perhaps it is desirable to do a "close-up" evaluation in terms of results that link up various audiences and direct the special attention of all to ascertaining those values of persons and groups of immediate concern for worthwhile direction.

Local Educational Agencies are often reluctant to take punitory action on what may be interpreted as adverse outcome data or evaluation results. One reason is the apprehension about the ability of outcome data to capture the essence of performance quality even though evaluation was based upon pre-determined objectives with criterion measures.

To further delineate the direction for utilizing evaluaton results in a course on vocational evaluation, this author expresses the need to "center-in-on" the impact of the program. Impact can be assessed by measuring the process and product by means of follow-up studies, external and internal, as well as the use of community resource evaluation.

Student Objectives

(1) To determine the facilitation of learning

(2) To determine the facilitation of placement and guidance.

(3) To improve
   a. Curriculum
   b. Instruction
   c. Facilities and equipment
   d. Cost ratio
   e. Services

Instructional Strategies For Utilizing Evaluation Results

(1) Formalize resource input (ex., use of advisory committees)

(2) Develop a plan and alternate plan to proceed with recommendations from the evaluation results

(3) Write communication reports regarding program improvements

(4) Monitor program improvement activities at a Local Education Agency

With the above general information as a basis for evaluation, a variety of evaluation strategies will be used. Each strategy listed below contributes to the total evaluation process with relation to the course objectives and the specific student objectives found under the heading Program Evaluation. A combinaton of the evaluation strategies should include those listed as follows:

1. Quizzes — The use of quizzes represents a type of formative evaluation that deals with certain levels of learning. While quizzes do not provide a complete source of evaluation, it does provide one much needed source. These quizzes will be oral and written.

2. Mid terms — This is another type of formative evaluation. The mid-term has the capability of reaching higher levels of learning and provides more in-depth evaluation than is generally possible with the quiz.

3. Questioning techniques — The questioning technique is a valuable source of formative evaluation. This technique provides an opportunity for personal exploration with the opportunity for appropriate follow up of original answers if needed.

4. Assignments — All assignments will be evaluated, graded and returned. In this way they become an evaluative technique. The use of individual assignments provides an opportunity for feedback on a personal basis.

5. Class discussions — This technique provides a type of feedback which can be evaluated. The discussion can be based on any mode of instruction. This evaluation is formative in nature and represents a unique kind of evaluation data.

6. Case studies — Case studies will be used as an instructional strategy and will also serve as an evaluation strategy. The materials developed and completed relative to the case studies will be evaluated. This evaluation will serve as part of the formative evaluation process. The case studies are an important evaluation strategy because they provide an opportunity for practical application of the theoretical concepts and principles upon which the solution to actual cases is based.

7. Problem solving — Structural problem solving situations will also be used as an evaluation strategy. The results of the problem solving activities will be evaluated and will serve as part of the formative evaluation. Problem solving represents a broad base for practical application.

8. Reports — Both oral and written reports will be used as part of the formative evaluation. This activity provides an opportunity for a student to assemble date, organize that data, and present the conclusions and/or recommendations to the instructor or other students in the class depending on the type of report assigned.

9. Notebook — The notebook development required for the course will be evaluated, also, as a part of the formative evaluation. The notebook enables the student to explore a total process of evaluation to a greater depth with a systems approach, including resources identified. It provides assessment of the student's ability to develop a plan with supportive materials.

10. Final examination — The final examination for the course will represent one aspect of the summative evaluation. The final examination provides an opportunity to evaluate student learning at a variety of levels of knowledge. The final examination can provide an opportunity for evaluation of acquired knowledge and/or performance evaluation.

11. Performance — If possible, performance evaluation should be used. Performance evaluation provides an opportunity to measure the student's ability to synthesize information, and apply in terms of action, that information to either a typical or a real situation. There can be two components to performance evaluation. One component deals with performance evaluation as part of the final examination or other course requirements. When used in this way, performance evaluation can be used as part of the course grade. The other component of performance evaluation deals with an evaluation of performance on the job, after the completion of the course. This provides a more complete assessment of the application of what has been learned. Obviously this evaluation cannot be used as part of the course grade, but it is important feedback on the effectiveness of the course. Performance evaluation represents another facet of summative evaluation.

PROGRAM INSTRUCTIONAL MANAGEMENT STRATEGIES

A well-managed program of operation can make the vocational program both practical and meaningful. It will provide the needed student experiences, various methods and modes of teaching and the best utilization of internal and external resources and activities.

Therefore, a course of study for Evaluation of Vocational Education Programs must include this element to assure support and full attainment of the application of tasks and/or skills identified in the course.

The following items are identified for the purpose of being in compliance with areas where strategies are to be applied in this evaluation course.

(1) Planning committees
(2) Student objectives
(3) System and plan (including time table)
(4) Orientation of personnel
(5) Use of resources
(6) Accommodations
(7) Materials
(8) Instruments
(9) Records and record forms
(10) Interview assessments
(11) Observation assessments
(12) Self-evaluation
(13) Team approach and PRIDE
(14) Case Studies
(15) Summary(ies)
(16) Reporting
(17) Dissemination—Reports
(18) News releases
(19) Problem solving
(20) Reports

COURSE EVALUATION

Evaluation of students in a course on Evaluation of Vocational Education must be criterion-referenced. Requirements are stated in advance by performance-based statements. The progress of each student is measured by pre-assessment, formative and summative evaluation. The evaluation methods will include performance, observation, and oral and written tests on items listed under the instructional strategies. This approach does lend itself to individualized instruction.

When a functional level of mastery on a pre-determined outcome is apparent, the summative evaluation should be conducted under such conditions as to indicate competency. Again, my interpretation will include a criterion-referenced description. Therefore, measurable objectives deal with the *timing* and purpose of evaluation.

Associated with evaluation today are the terms of Benjamin S. Bloom, who orders the objectives of learning into three domains. The three domains are affective, cognitive and psychomotor. They are significant due to the fact that emphasis upon the learning to take place reflects to objectives in a given domain. Analysis of the results of pre-assessment will aid in establishing the objectives in the instructional process.

CONCLUSIONS

Through this paper, the author has made an attempt to direct the concern of vocational educators in Ohio with linking a college course on "Evaluation of Vocational Education" to programs and program outcomes. In so doing, a systems approach was used to provide the framework from which to develop a course outline. Such a course can be criterion-referenced. In addition, product-outcomes can be linked effectively to individuals and societal needs, interests, and values. To seek such linkages is a worthwhile responsibility of being accountable. In the process, legislative interest may be defined for positive direction. Evaluation of Vocational education programs may become more functional and useful to being about PRIDE.

APPENDIX A

DEFINITIONS

The following terms have been defined to establish a base of communications and understanding in the evaluation process.

Evaluation — is the process of delineating, collecting, and providing information useful for judging decision alternatives (Stuffebeam, et al., 1971) — includes obtaining of data, acts of judgment or appraisal for decision-making according to a set standard of an outcome with potential utility of alternative approaches or processes to obtain predetermined objectives

Formative Evaluation — an appraisal process designed to determine if a program is accomplishing its intent.

Impact — is the effect on individual and society needs, interest and values.

Summative Evaluation — an appraisal process to determine the degree of program accomplishment or achievement.

PRIDE — Ohio's Program Review for Improvement Development and Expansion of LEA vocational programs.

Product — is referred to as success outcomes.

Process — the process component is part of the system where the activity of organization and management takes place with identified curriculum, instruction, staff, facilities and students.

APPENDIX B

SAMPLE EVALUATION INSTRUMENT — COMPONENTS

Service Program Area

____

Vocational Education Planning District ______________________

School ____

Instructor ____

Instructional Program Area ______________________________

Date ____

Program Evaluation Committee

	Name	Position
Chr.		

Directions For Program Review

Overview

Guidelines

Program assessment chairperson

Program assessment committee

Procedural statement

Program description (including objectives and strategies)

Assessment Observation Criteria Statements

General statement

Listing of statements

Assessment Phase

Performance Objective(s)	Assessment Informaion (based on criteria statement)

Summary of Objective Achievement (outcome)

Recommendations

Area of improvement

Means of improvement

Cost Comparison

Program/course

Course number and title	Cost summary	Outcome benefits

Summary Statements

Assessment Area Components

(1) Process system

(2) Product

(3) Personnel

(4) Cost Analysis

(5) Evaluation Results

Conclusions

Appendix C

Example Product Evaluation Instrument

Direction:

Respond to each item frankly. Mark one response per item.

SA = Strongly Agree; A = Agree; N = Neither Agree nor Disagree; D = Disagree; SD = Strongly Disagree

Classroom/Laboratory/Work Station Operation and Control

SA	A	N	D	SD	
					Students help to keep things running smoothly.
					We have only necessary rules and regulations.
					Students have a voice in classroom & laboratory affairs.
					Students respect the teacher.
					The teacher respects students.
					My supervisor and I have mutual respect.
					The teacher has a sense of humor.
					The teacher is neat and orderly.
					The teacher ensures that everyone can see and hear
					The teacher cares about room temperature.
					The teacher cares about lighting.
					The teacher cares about ventilation.
					The teacher cares about safety to students.
					The teacher cares about safety to equipment.
					The teacher cares about safety to materials.
					Students feel "at home" with the teacher.
					Students feel "at home" in the laboratory.

SA	A	N	D	SD	
					In general, how much help was your high school occupational training in the following areas: Knowing how to use tools & equipment.
					Knowing what one does in this kind of job.
					Using time and energy productively.
					Finding needed job related information.
					Being able to talk to the boss about job problems.
					Getting along with the customer, being patient, and so on.
					Getting along with other workers.
					Understanding union membership.
					Handling new or unpleasant situations.
					Applying for a job.
					Interviewing for a job.

Employer's Rating of Vocational School—Program

Student ______________________ **Employer** ______________________

Information, as checked in the spaces below, will assist the high school in its appraisal of the cooperative work of (name of student) ____________

It is suggested that the person most familiar with the student's work supply a frank and impersonal estimate of his or her performance by comparison with the average employee doing the same or similar work.

ATTITUDE AND INTEREST

( ) Enthusiastic
( ) Interested
( ) Average
( ) Somewhat Indifferent
( ) Not Interested

QUANTITY OF WORK

( ) Unusually high output
( ) Above Average
( ) Average
( ) Less Than Expected
( ) Below Minimum Requirements

ADAPTABILITY

( ) Adjusts Easily—Very Well Liked
( ) Good Team Work
( ) Cooperates Satisfactorily
( ) Has Difficulty Working with Others
( ) Antagonizes Fellow Workers

DEPENDABILITY

( ) Entirely Dependable
( ) Requires Little Supervision
( ) Satisfactory
( ) Sometimes Neglectful or Forgetful
( ) Unreliable

ABILITY TO LEARN

( ) Grasps Ideas Very Quickly
( ) Above Average
( ) Average
( ) Rather Slow to Learn
( ) Very Slow

INITIATIVE

( ) Takes Hold Readily
( ) Above Average
( ) Goes Ahead Reasonably Well
( ) Somewhat Lacking
( ) Lazy

QUALITY OF WORK

( ) Excellent
( ) Above Average
( ) Satisfactory
( ) Below Average
( ) Very Poor

JUDGMENT

( ) Displays Excellent Common Sense
( ) Usually Does the Right Thing
( ) Ordinary
( ) Occasionally Uses Poor Judgment
( ) Very Poor—Rash

In summation, the student's general performance may be considered as:
( ) Outstanding ( ) Very Good ( ) Satisfactory
( ) Mediocre ( ) Unsatisfactory

Additional Comments:

____

____

____

____

Rated By:

Name ______________________________

Title ______________________________

Department ______________________________

Date ______________________________

APPENDIX D

EXAMPLE DOCUMENT 1

SAMPLE INSTRUCTOR EVALUATION INSTRUMENT

Roundtown C. U. Dist. #201
Roundtown, U.S.A.

Instructor: ____________________ Position: ____________________

Evaluation Period: ____

Principal: ____

Instructor Evaluation System Rationale

An important foundation for building an optimum learning environment is through a mutually developed, ongoing instructor evaluation system designed to enhance accountability of instructors' performance throughout the academic year. This process should culminate in analysis and decisions of the instructor's growth and development by instructors and their principal.

Evaluation is a process that must be continuous and constructive and must take place in an atmosphere of mutual trust and respect. Only through a cooperative effort can an instructor evaluation system hope to insure the greatest positive growth and effectiveness of all instructors.

The primary function of such a process is to help all employees develop the objectives, skills and knowledge necessary for them to grow on the job in a way that is consistent with their needs and those of their profession, their community and their colleagues. Additionally, the process may also function as a means of obtaining clear information to be used as one form of input into the making of personnel related decisions.

Procedural Overview

The instructor evaluation system is divided into three separate phases. They include pre-assessment, assessment and post-assessment. During the pre-assessment phase, each instructor sets forth teaching performance objectives which will focus the instructor's activities during the year. In addition, assessment techniques are identified which will be used to gather data to measure objective achievement. The assessment phase follows and involves the process of gathering the data to be analyzed during the post-assessment phase. It is during this phase that written statements concerning achievement of established performance objectives and identification

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Example Document 1 (continued)

of areas of needed improvement with projected means to achieve the improvement are formulated.

The following general guides will apply to the instructor evaluation system:

1. Each nontenured staff will annually complete the instructor evaluation system with tenured staff completing the system at least once every three years.
2. Each building principal is responsible for coordinating the instructor evaluation system within their building. Coordination will include initiating pre-assessment conferences and post-assessment conferences as well as conducting classroom observations of instructors undergoing the system in any one year.
3. All pre-assessment conferences between instructors and their principals will be completed prior to October 15 of each academic year. Assessment activities should be completed prior to April 1 allowing the remainder of the academic year for completing post-assessment conferences between instructors and their principal.
4. Upon completion of the post-assessment conference, concurrence with the evaluation results is verified by signature of the instructor and principal. The right of appeal exists for each instructor who is not in concurrence with the findings of the principal. The first appeal stage is with the superintendent. If satisfaction is not gained here, an appeal may be filed with the board of control where the final decision will be made concerning the content of the evaluation instrument.

Pre-Assessment Phase

Teaching Performance Objectives	Assessment Techniques Utilized to Measure Objective Achievement

Assessment Phase

Performance Objective	Assessment Information by Objective

Principal Classroom Observation Analysis

The following teaching characteristics should be rank ordered by the principal following classroom observations conducted during the assessment phase. The instructor's characteristic needing the greatest attention should be ranked "1," the next characteristic "2" and so forth.

Clarity: The objectives of the class situation are made clear. Adequate planning is evident from coherent and organized learning activities. The material for instruction is logically and clearly presented and is appropriate for the maturity and academic level of the student.

Basis for ranking:

Variability: The instructor is adaptable as different procedures seem needed. The techniques used are appropriate to the objectives of the lesson. The instructor uses a variety of questioning techniques and teaches for several levels of understanding, from fact to value.

Basis for ranking:

Enthusiasm: Enthusiasm is shown through facial expression, voice, movement and gestures. Students are actively and definitely involved because the instructor makes learning interesting with stimulating and original materials and presentations.

Basis for ranking:

Task Orientation: Students are engaged in constructive activities. The instructor maintains definite learning goals while allowing for self-exploration and discovery.

Basis for ranking:

rapport: The personal relationship between the students and the instructor is harmonious. The teacher exhibits a genuine concern for individuals. There is a sense of mutual respect between students and teacher.

Basis for ranking:

Post-Assessment Phase

A. Summary of Performance Objective Achievement

B. Needed Areas of Improvement	Suggested Means of Improvement

Signature of Compliance of Statements Related to the Outcome of the Instructor Evaluation System:

Instructor: ______________________________ Date: ________________

Principal: ______________________________ Date: ________________

BIBLIOGRAPHY

Armstrong, Charles M. "Program Evaluation in Vocational Education." *Journal of Industrial Teacher Education*, VI (Spring, 1969).

Bloom, Benjamin S. *Taxonomy of Educational Objectives, Handbook I: Cognitive Domain*, New York: David McKay Company, Inc., 1956.

Braybrooke, David and Lindblom, Charles E. *A Strategy of Decisions*, New York: The Free Press, 1963.

Bryan, Harold M. "Strategy and Methodology for Self-Initiated Evaluation of Local Programs of Vocational Education." *Journal of Industrial Teacher Education*, VI (Spring, 1969), pp. 49-59.

Carr, Harold L. "A Program Review Paradigm For Ohio Vocational Education." *Doctoral Dissertation*, The Ohio State University, 1970.

Furst, Edward J. *Constructing Evaluation Instruments*, New York: David McKay Company, Inc. 1964.

Hamlin, H. M. "What is Evaluation?" *American Vocational Journal*, XXXXII (May, 1967), pp. 19-22.

Kievit, Mary "Perspectivism in Choosing and Interpreting Outcome Measures in Vocational Education."

Kievit, Mary, *Paper Presented at the National Conference on Outcome Measures for Vocational Education*, the National Center For Research in Vocational Education, Columbus, Ohio, August, 1967.

Myers, Robert H. "Evaluation of Learning" *The Heart of Instruction*, Series 12 Ohio Department of Education — *Division* of Vocational Education, Columbus, Ohio, 1977.

Nelson, Helen Y.; Jacoby, Gertrude P. *Evaluation of Secondary Programs to Prepare Students For Wage Earning Occupations Related to Home Economics*," Final report, Vol. I and II, New York State College of Home Economics, Ithaca, New York, 1967.

Provus, Malcolm. "Evaluation of Ongoing Programs in the Public School System" *Educational Evaluation: New Roles, New Means*. Sixty-eight Yearbook of the National Society of the Study of Education, Part II, Chicago: University of Chicago Press, 1969.

Venn, Grant. *"Criteria Against Which Vocational Education Should Be Held Accountable" Paper Presented at the National Conference on Outcome Measures for Vocational Education*, the National Center for Research in Vocational Education, Columbus, Ohio, August, 1978.

Walters, Franklin B. "Procedure Guide For Instructional Program Review Chairman" *Ohio Program Review For Improvement, Development, and Expansion of Vocational Education*, Ohio Department of Education, Columbus, Ohio 1978.

Wentling, Tim L.; Lawson, Tom E. *Evaluating Occupational Education and Training Programs*. Boston: Ally and Bacon, Inc. 1975.

Wentling, Tim L. "Locally-Directed Evaluation — Evaluation For Improvement" Handbook 1 and 2 by Department of Adult, Vocational and Technical Education, Illinois Office of Education, 1976.

Topic Analysis for Vocational
Teacher Education

THE ROLE OF VOCATIONAL TEACHER EDUCATION IN THE FUTURE

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THE ROLE OF VOCATIONAL TEACHER EDUCATION IN THE FUTURE

CHANGE AND THE STATUS QUO

"The more things change, the more they stay the same." Whoever coined that phrase may or may not have known much, if anything, about vocational teacher education, but he/she may have appropriately described the situation in which vocational teacher education finds itself today.

Consider the changes that are confronting the vocational teacher education profession: declining enrollments in our public schools which means fewer potential enrollees in vocational education, hence a decreasing demand for new teachers; increasing teacher tenure which reduces the need for replacement teachers; the public's hue and cry for greater program equity; and the growing competition for what appears to be severely limited financial resources. All of these factors, plus many more, are cause for vocational teacher education to reflect on the questions: "What do these changes mean to the profession?" and, "What is the future role of vocational teacher education in relation to such changes"?

Realizing there are no hard and fast answers to the questions posed above, after some reflection and numerous discussions with various vocational teacher educators from across the country, one point seems abundantly clear to this writer:

> **The primary role of vocational teacher education is to prepare and maintain a capable, competent cadre of teachers to serve the needs of all vocational education students at the secondary, postsecondary, and adult levels.**

BUT WHAT ABOUT . . .?

For the purposes of this discussion, if the primary role of vocational teacher education is as stated above, other questions will most probably arise, such as:

What about research?

What about preparing supervisors, administrators, and future teacher educators? and,

What about professional writing and being involved on college/university committees and with professional organizations?

The questions are legitimate, they're real and certainly they must be considered in projecting the future role of vocational teacher education. However, the fact remains that the primary role of vocational teacher education is to prepare and maintain a capable, competent cadre of vocational teachers.

Research is a cornerstone upon which vocational teacher education should be built. However, in all too many instances there has been a

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distorted perspective regarding research and its purpose. Too frequently it has been designed and conducted with little consideration given to its relationship or impact at the instructional program level. If that situation prevails, before long research becomes research for the sake of research rather than for truly improving vocational education.

The preparation of instructional leadership and support personnel such as administrators, supervisors, and teacher educators is also a noteworthy responsibility of vocational teacher education. However, in numerous instances the preparation of such personnel in the past has focused upon things like budgets, buses, and books at the expense of focusing upon leadership and support personnel relationships and responsibilities to teachers and students. Under such circumstances there is the chance that the major objective becomes one of preparing administrators, supervisors, et al. for the sake of same rather than for meeting the real needs of vocational education at the instructional program level.

A similar parallel can be drawn regarding professional writing and professional organization activities; that is, such endeavors may become all important at the expense of losing perspective of the primary mission of preparing competent, capable teahers.

If what has been discussed to this point has any credence of truth, then the first suggestion regarding the role of vocational teacher education in the future is to rekindle or renew that vision or spirit of investing one's self in the preparation of teachers. If vocational teacher education does not subscribe to such a creed then everything else may be for naught.

SOME ESSENTIAL INGREDIENTS

If vocational teacher education is to retain its effectiveness in the years ahead there are some essential ingredients that are inherent to its continuing success. They include:

A standard of excellence — Not long ago a person related an analogy that emphasizes the importance of this particular ingredient. It went something like this: "Hospitals should not spread germs and many teacher education institutions are guilty of spreading germs." What this person was really saying was that teacher education programs should set forth examples of excellence in teaching but in all too many instances they are not. Therefore, one essential ingredient that is imperative to the quality of teacher education programs is the preparation of teachers by example rather than by precept. The old saying, "One teaches as he/she has been taught," is as applicable today as when it was first voiced. Teacher educators have no alternative other than to employ the best techniques in planning, teaching, and evaluation as they prepare tomorrow's teachers. Anything less than their best borders on malpractice.

A code of ethics — If teacher education is truly a profession it must be self policing. Admittedly there are self study committees, accreditation reviews, and promotion/tenure recommendations, but they quite often deal with peripheral factors such as: are the facilities adequate, are there sufficient library and media resources, are professional staff profiles and credentials in order, etc. But within the context of this paper, that's not what is meant by self policing. Self policing refers to the assurance by the profession that truly the best qualified and competent teacher educator is about the business of preparing tomorrow's teachers.

Somewhere in the evolution of teacher education an attitude has developed that teaching at the undergraduate level is less prestigious than teaching graduate level courses. Hence, as a part of the internal reward system, promotions have been made on the basis of assigning the 'better' and more experienced teacher educators to graduate programs and dividing up baccalaureate level programs among the newer staff members, or those not credentialed for graduate level instructional status. Such a practice is not to imply that new teacher educators are not competent but it is intended to point out that many good teacher educators have been promoted out of undergraduate level teaching and have been replaced by less able personnel. If this practice is universal then serious questions must be raised regarding the profession's commitment to the proposed primary role of preparing competent, capable teachers.

Professional commitment — Professional commitment on the part of vocational teacher education far exceeds many other professional areas at the college/university level. The profession is to be commended for the dedication that it has exhibited. The reason, however, for bringing this essential ingredient to the reader's attention is to reemphasize its importance and caution him/her to ignore the inducement to do less than is necessary for quality performance. Vocational education in this day and age can never become complacent. It must continue to invest itself totally in order to assure the quality to which it subscribes.

Community of thought — To put this point in as simple terminology as possible, suffice it to say that vocational teacher education must get its act together. As an illustration, not too long ago a teacher in a nearby joint vocational school related that on three different occasions, three teacher educators from the same university and the same department visited his program. On each occasion he asked the teacher educator to react to the course of study that he was in the process of developing in accordance with departmental expectations. The first teacher educator's reaction was, "That's fine, keep up the good work." The second teacher educator stated, "I guess that's okay, but it's not how I would have directed you to do it." The third teacher educator supposedly said, "It's a good thing you're not under my supervision because that course of study would never be approved." What must have been the feelings of that unfortunate teacher: confused, frustrated, disgusted? Was the teacher on the right track? Should the teacher continue or was it truly a lost cause? Did the teacher education department really know what it wanted in a course of study? Was there any community of thought? If teachers are expected to aspire to greater professional heights then teacher education must be consistent in what it stands for and in the delivery of services.

Self renewal — John Gardner, former Secretary of Health, Education, and Welfare recognized the importance of self renewal in maintaining the vibrancy and creativity of an organization. Such a self renewing concept is as applicable to a profession as it is to an institution or an individual. For a profession to maintain high standards and to grow in quality it becomes exceedingly important to have a regular meeting of the minds to discuss common concerns and problems, and to arrive at appropriate solutions and directions. It's only through a self renewing process that many of the other essential ingredients of a vocational teacher education program can be maintained.

A LOOK INTO THE FUTURE

In looking at vocational teacher education and where it may direct its attention in the immediate future, selective suggestions are proposed for consideration.

- More emphasis on preservice and inservice education — Strong graduate and research programs are built upon strong preservice and inservice education programs and not vice versa. Special attention should be given the inservice component in view of the fact that teachers are staying on the job longer and could benefit from periodic, targeted inservice assistance.
- Better and more extensive utilization of research in the preparation of teachers — All too frequently it seems that vocational teachers in training are being prepared in terms of, "How I used to do it when I was a teacher." There is a constant flow of new research findings which reveal more and more about how individuals learn and about how teachers should relate to individuals in a learning environment. This research information should be used in the training of vocational education teachers and not merely referenced or quoted. It should be applied in teacher education classes in such a way that teachers in training can benefit from the process as well as become skilled in its application when they become teachers. Examples of such research include competency based education, individualized educational programming, and the application of findings related to different learning styles. Perhaps the need for more technology in teacher education is not as critical as is a better application of the technology that is already available.
- Strategies for the preparation of teachers to teach the disadvantaged and handicapped — The role of vocational education in serving the disadvantaged and the handicapped is not a debatable issue. Morally and legally the responsibility is clear. Perhaps a more appropriate question is how will teacher educators address the responsibility of preparing teachers to serve

these special subpopulations? Currently most teacher educators do not possess the qualifications to deal with the problem. Until such expertise is prevalent, alternative strategies need to be designed and implemented that augment the standard teacher education program to assure that teachers in training are prepared in the best possible fashion to effectively teach this special kind of student.

- Strategies for teaching remedial reading, math, and communication skills — The teacher education redesign thrust in Ohio has made this particular concern a reality for all teacher education institutions throughout the state. The central question is one of how will students who are preparing to be teachers and who are enrolled in teacher education programs be prepared to teach the necessary remedial math, reading, and communication skills that are called for as a result of the teacher education redesign effort. Every teacher education program throughout this state must have identified a strategy and prepare to plan to address this concern. However, honesty in the implementation of such strategies and plans is critical. Assurance beyond any reasonable doubt that the plan will effectively and efficiently deliver those kind of remedial services is essential if vocational teachers of the future are going to be competent in the area of remediation.
- Differentiation in strategies in the preparation of teachers for urban versus rural communities — Suffice it to say that students coming from a rural environment are different. They have a different set of values. They have a different attitude toward life. They have a different set of concerns and priorities than those coming from an urban background. What kinds of differentiation do teacher education programs offer for addressing these two different types of students?
- Coping with the drug/alcohol/tobacco culture — This is a major problem with the youth of today. Perhaps one of the most influencial means for dealing with such problems is the teacher in the classroom who comes in daily contact with these teenagers. What are the teacher education programs doing in preparing the teachers of tomorrow to deal with the whole drug/alcohol/tobacco problem?
- Teaching safety — Especially in this day and age when OSHA is having such a profound impact upon business and industry throughout the nation and in view of the ever increasing emphasis given to the establishment and maintenance of a safe working environment and the adoption of safe work habits, what are teacher education programs doing in the preparation of teachers to deal effectively with the whole area of safety in the best interest of the health and welfare of the students enrolled in the program? A strategy to deal with the preparation of teachers in this area merits immediate attention.
- Eliminating sex bias — It is no secret that vocational education has become the testing ground for promoting equal access into programs and ultimately into jobs regardless of sex. This is an awesome responsibility in that vocational education has been requested to deal with prejudices that

have existed for centuries — with biases that are deeply imbedded in society. Without appropriate role models to turn to that could be illustrative of how things should be, not only is the whole issue of sex equity and sex fairness in vocational education a problem for state and local administrations, but it also becomes a challenge for teacher education in the preparation of teachers regarding how they should deal with the problem of sex equity as they relate to students, employers, and parents.

IN SUMMARY . . .

Your role is clear; that is, to continue to prepare competent, capable teachers to serve the needs of vocational education students at the secondary, postsecondary, and adult levels. The challenge is there. The question is, will vocational teacher education meet it? There is reason to believe that it can. But if it does meet the challenge that has been set before it, let it be reiterated that it's going to take real commitment, professional integrity, unanimity of effort, and self-policing, capped by a standard of excellence. If there is dedication to these thoughts, then the role of teacher education in vocational education for the future is assured.

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A Topic Analysis For Vocational Teacher Education

OCCUPATIONAL COMPETENCY FOR QUALITY VOCATIONAL EDUCATION

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OCCUPATIONAL COMPETENCY FOR QUALITY VOCATIONAL EDUCATION

SIGNIFICANCE OF OCCUPATIONAL COMPETENCE

In an address in 1969, James A. Rhodes, Governor of Ohio, identified the major social ills of society as (1) unemployment, (2) welfare, and (3) lack of occupational skills. In his address, subsequently extended into a book entitled *Alternatives to a Decadent Society*, he elaborated on the thesis that vocational education gives definite purpose and meaning to education. In particular, although recognizing that vocational education had greater responsibility and purpose than just training for job skills, the development of technical knowledge and work skills for employment was the foundational obligation of vocational education, and if properly executed, inevitably contributed to the development of abilities, attitudes, work habits and appreciations contributory to a satisfying and productive life.

In a recent paper by Mary Kievit, Acting Dean, Graduate School of Education, Rutgers, The State University of New Jersey, she pointed out that Prosser and Allen, in a much earlier work, *Vocational Education In a Democracy*, in 1925, had come to a similar conclusion, although from a quite different perspective. In general, Prosser and Allen assert that although no form of vocational education, worthy of the name, would confine itself to manual skill and general technical knowledge, the fundamental obligation of vocational education is to develop and transmit "occupational intelligence" through an orderly process of training. Dr. Kievit, in the same paper, referred to a survey of employers in New Jersey in 1976 as part of an effort to identify what employers considered as the minimum basic skills requirements for employment for high school graduates. The survey, which included small, large, and medium firms, concluded that requirements for employment were most typically job related, with very few indications of general academic requirements.

The aforegoing references and comments were intended to establish occupational competency as the salient and unique contribution of that distinct segment of the educational structure known as vocational education. Pursuing that intention, the next element which logically calls for attention is to consider the import and impact of instruction which is generically devoted to the development of occupational competency. This subject is very well covered in the cogent and outstanding article by Carl J. Schaefer and May W. Huang, which appeared in the March 1978 issue of the *American Vocational Journal* under the title "Occupational Competency Measures: Ultimate Component of Competency Based Vocational Education." I should like to quote one paragraph which sets forth in clean and unequivocal language the key contributions to quality vocational education which can be made through occupational competency assessment:

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> "To accomplish a systematic approach to vocational instruction, we need valid and reliable occupational competency measures—measures that enable us to make informed judgments and decisions in at least four major areas: student proficiency at the end of the teaching-learning process; student advanced standing in higher education; student needs during the teaching-learning process (a diagnostic concern); and the accreditation of vocational education programs."

These four measurement outcomes in measuring occupational competency are, of course, devoted to the direct contributions to the welfare of the individual student. In addition, there are a series of values which have to do with the assessment of program quality and effectiveness as a management tool. Although this subject is not intended to be an integral part of this paper, it does deserve a little more than just being mentioned, in recognition of the extensive concern of the Congress, and the concomitant Regulations of the U.S. Office of Education related to the recent amendments to the Vocational Education Act.

By date of December 1970, the National Institute of Education transmitted to the Congress "A Plan for the Study of Vocational Education." The Plan is a very sophisticated and elaborate approach to evaluation of all major facets of vocational education programs, from attention to distribution and application of funds; to compliance with laws; to means of assessing program quality and effectiveness; not to mention a special section on "Review and Evaluatuion of Consumer and Homemaking Education Programs." In connection with assessment of program quality, frequent reference is made to both Law and Regulation. I should like to quote for you a specific section of the Regulations which identifies the obligations of State Boards for program evaluation, and provides the platform and justification for the material with which the remainder of this paper is concerned:

> "Par. 104.402. — Evaluation by State Board
>
> The State board shall, during the five-year period of the State plan, evaluate in quantitative terms the effectiveness of each formally organized program or project supported by Federal, State, and local funds. These evaluations shall be in terms of:
>
> (a) Planning and operational processes, . . . (1-6)
>
> (b) Results of student achievement as measured, for example, by:
> (1) Standard occupational proficiency measures;
> (2) Criterion referenced tests;
> (3) Other examinations of student's skills, knowledges, attitudes, and readiness for entering employment successfully."

With this rather elaborate preamble in justification of two principles, namely; (1) that occupational competency is among the highest level of quality components in vocational education, and (2) that occupational competence deserves evaluation, as a measure of its contribution to progra quality, there arise te two inevitable fundamental questions: first, what is the occupational competence under cnsideration; and second, what are the ways by which it can be measured, effectively and reliably?

In response to the first question, I will take the liberty of avoiding elaborate discourse by conceding that the qualified vocational educators being addressed in this paper are fully familiar with the principles and procedures of identifying the content necessary in an instructional program for the development of a given level of occupational competence in a given field. If there is any comment at all to be made at this time, it probably should be to point out that the *"given level,"* all too frequently tends to become *"all levels"* of competence, as reflected in many courses of study. With full recognition of the divergence in concepts about which occupational components should be included in, let us say, a secondary or post-secondary program of instruction in auto mechanics, the controlling consideration and judgment must be closely related to the program goal or goals. Clearer definitions of program role than "entry level employment" are most certainly deserved. Otherwise, vocational education programs are likely to find the same disenchantment in the public eye as has been experienced in academic education by the disparity between the stated goals, and the actual achievement outcomes, particularly evident at the two extremes; tool subjects limitations at one end, and declining SAT scores at the other.

However, within an intended strict neutrality as to what level of occupational competency is the intended goal of any particular program, it has become quite clear in all levels of society that, to the extent that there is a desirable and definable level of occupational competence within the goals of a vocational program, then a reliable measurement system must be adopted to determine to what degree the goal has in fact been achieved. And inevitably, such measurements must be taken first, student by student, and then by aggregations of data program by program, and even school by school. With a standardized measurement system by which data can be aggregated and norms developed, then judgments can be effectively made, with respect to the quality, of the occupational competence being developed in various programs. And, to move from the process to the purpose, strengths of programs can be distinguished from weaknesses of programs by various analytical means; and thus program weaknesses can be restored to strength.

OBSERVATIONS AND CONCLUSIONS ON NATIONAL EFFORTS AT OCCUPATIONAL COMPETENCY TESTING

Present literature contains a wealth of information on continuing test development and procedures, statistical treatment of test results, and the search for better, more accurate, valid, and reliable instruments. However, these efforts relate primarily to measurement of human characteristics, such as: abilities, aptitudes, intelligence, emotional stability, occupational interests, and related areas. Achievement testing has largely been confined to academic subjects. The larger number of students involved in such testing programs has provided the impetus for greater effort than has been possible with occupational competency tests. Such efforts have received, by far, the greater priorities in competency assessment. The development of ever-increasing skills in the world of work, and the need to develop these skills in others, remains an area of relatively limited inquiry.

An extensive search of the literature between 1970 and 1972 showed a sparsity of published information on occupational competency testing. Most of the material identified was in the form of written pencil and paper tests. On the other hand, there has been gradual recognition, supported by research during recent years, that the evaluation of occupational competency in skilled areas requires measurement by performance testing. Among states government agencies, industry and the military, there has been a nearly unanimous expression of opinion that occupational competency performance tests are needed for the skilled occupations. Lack of funds, unavailability of adequately trained vocational education testing specialists, and limited testing facilities have been cited as deterrents to such test development.

Civil Service Agencies on the federal, state, and local levels rely heavily on written examinations. For some fields, performance tests have been developed on a limited scale. A few efforts have been made to standardize and validate such instruments. The major reliance has been on face validity and the authority of occupational specialists. However, published data on such tests has not become available. Industry, on the other hand, has relied principally upon supervisory judgment to appraise occupational proficiency. No published material dealing with proficiency appraisal, through performance tests in industry was located. It may be assumed that the limited number of firms which employ such tests wish to keep the results obtained for internal information only; or, that such information is simply not available.

In direct contrast, the military has made strong efforts to evaluate the proficiency of military personnel, at least, as part of the overall competence, through performance tests. While there is much variation among the many service schools in the manner in which performance proficiency tests are developed, the greatest progress has been made in the Army Enlisted Evaluation Program, the Signal Corps Training Schools and several Navy Electronics Schools. The specific nature of the skills required for the highly specialized military occupations, the need of preparing the individual for effective performance in his assignment, and the ever-increasing mechanical and electronic complexity of military equipment and machinery have given strong impetus to the establishment of special test development and control groups which are staffed by test specialists. There is an increasing trend to develop, control, and maintain written and performance tests for certain areas from a central test development center.

Among state vocational education agencies, evaluation of occupational competency has been largely limited to tradesmen who are applicants for teaching positions in vocational trade programs. In sixteen (16) states and twenty (20) teacher education centers, test development has been concentrated on nine (9) major industrial occupations areas. Until recently, with the advent of the national program of occupational competency testing (NOCTI), most states have tended to duplicate each other's effort. The minimum duplication was three (3) tests developed for the same occupation; the maximum, twenty (20) tests developed by that many institutions for the same occupation. The quality of the tests ranged from fairly elementary measurement of occupational competency to sophisticated levels. Two (2) states have published limited information concerning validity and reliability of only a few tests. No such information was available from the remaining states.

With respect to occupational competency testing programs for vocational students, only two states were identified as having developed testing programs of significance; in one state, confined to written testing and, in the other, combined written and performance test. Regrettably, the latter program has been dropped since the national study of occupational competency testing was completed in 1972. As in the examination programs for prospective teachers, nationally, some 15 occupational fields were covered by these examinations, and virtually confined to trade and technical areas.

In summary, the outcomes of the intensive study of "State of the Art" of occupational competency testing, as reported to the U.S. Office of Education in the national study funded by that office through Rutgers, The State University of New Jersey, lead to the following conclusions:

1. That an exceedingly limited amount of data or experiences relating to occupational competency test development, administration, validation, or research results are recorded;
2. In general, organizations which carry on significant work in occupational competency testing recognize that adequate measures require testing in both the theory (technology) and the skills (performance) of each occupation, that one without the other is not valid;
3. Only limited numbers of occupational competency tests have been prepared to measure both skill and technological knowledge and that with some exception, appropriate data bases for effective evaluation of such tests have not been developed;
4. Validity and reliability of occupational competence assessment measures have not been effectively established, largely because no

vehicle has existed for collectively pooling test data, or even using common test instruments over a large enough population to be able to analyze and synthesize significant findings or experiences;

5. Only limited numbers of highly experienced and skilled occupatioal competency test construction, administration, and research persons in vocational education devote a significant portion of their time to such efforts;
6. No single administrative unit, up to this point, has had a combination of sufficient funds, facilities, equipment, personnel, or great enough populations of test participants in each occupational field, to be able to adequately develop, administer, or evaluate the results;
7. Development of complete occupational competency examinations requires substantial investments of human and material resources, significant numbers taking an examination, with the results pooled for statistical analysis and other treatment of the data in establishing norms, and other information that may be studied in depth;
8. There is excessive unplanned duplication of effort in a restricted number of occupational fields;
9. Many forms of tests in a single occupational field are needed to serve many different measurement functions for different parts of the occupation and different combinations of occupations;
10. Occupational competency assessment in vocational education requies a Consortium of States effort to develop, administer, and validate tests, through investment of significant sums, the employment of competent staff on a full-time basis, supportive "software" and "hardware," and a cooperative arrangement for feedback upon which judgments may be made on the effectiveness of each instrument and the value of test results and testing program.

OCCUPATIONAL COMPETENCY TEST DEVELOPMENT PROCEDURES

Basic Assumptions

The foundation of effective competency test development rests upon a comprehensive analysis of constellations of occupational job titles grouped into clusters on multilevels of performance difficulties. They range from operatives to highly proficient tradesmen and to technicians in the lower range of professional job classifications. The skills, knowledge, and information which constitute occupational competence derived from bona fide work experience in actual paid employment must be identified by individuals who are able to perform on the various levels of competency according to industrial standards.

ADVISORY AND PLANNING COMMITTEES — COMPOSITION AND RESPONSIBILITY

To prepare an occupational competency test which could effectively evaluate the composite elements of competency for a cluster of jobs on specific level, it was necessary to bring together an advisory committee for each job cluster. The membership consisted of a group individuals recognized in the occupational field for the competence, knowledge, and understanding of the requirements of the effective range of payroll jobs (which constitute the job cluster). A representative cross-section for such an advisory committee normally included:

- Two representatives from industry with broad competency in their respective occupational areas,
- One industrial teacher educator with prerequisite occupational competence, vocational industrial teacher experience under certification, and expertise in test development, and
- One to two vocational industrial teachers experienced in the occupational area with leadership potential in test development.

The major responsibility of the advisory committee was to assess the guidelines and directions, assist in defining broad coverage of those skills and informational areas which constitute occupational competency, establish levels for which competency tests were to be developed, and recommend guidelines for evaluating test results. The sequence of steps suggested for the Pilot Test Development Advisory Committees are represented in graphic form in the accompanying chart.

Committees for Test Development

While the Advisory Committee establishes the broad scope of the examination such as competency levels and range, the actual test development must be done by a group of specialists. With the advice and counsel of the Advisory Committee, test development committees identified job titles in an occupational area and clustered the job titles for job groupings from operative to skilled tradesmen to semi-professional technician for each of the tests to be developed. The procedures used included:

- Evaluation of job clusters for completeness,
- Determination of the levels of job titles to be included for the examination content,
- Development of a master analysis of the various job clusters for competency skills, technology, judgments, and other information basic for competency in the occupation,

- Formulation from this master analysis of a scope or grid of the examination showing the number of test items for each sub-area of the occupation to be included in the written part of the examination.
- Test items (with answers) were formulated, then reviewed and evaluated as to appropriateness, difficulty, clarity of meaning, and representativeness to the occupation by the whole committee, and
- Format of the examination — The Format was determined by test specialists.

Each committee then reviewed their examination and the answer key for completeness and accuracy. The outside specialist(s), from industry, reviewed the examination for content, completeness, appropriateness, and level of difficulty.

In order to achieve an appropriate format, clarity in phrasing the test items, and appropriateness of the items, professional testing organizations conducted an objective review and made recommendations. For the pilot tests, the Psychological Corporation of New York City reviewed the machine trades test and the Educational Testing Service, Princeton, New Jersey, performed the same service for the electronics test.

Performance Test Development

The method followed for the written examination was equally applicable to performance test development. However, additional consideration was given by the committee of specialists to such limiting factors as:

- The time required to complete a work sample,
- Machinery, equipment, tools and materials required, and
- Availability of appropriate facilities.

A very careful analysis was made to select those skills and work methods most representative of the competency level of the occupation. A "trial test" was conducted to determine whether each performance test was representative of the competency level of the occupation in which candidates would be evaluated.

Performance Evaluation of Candidates

Unlike the written part of the occupational competency examination, which can be objectively evaluated, the performance test involves personal judgments. In order to reduce the subjectivity of personal judgments and to have each examiner evaluate the same aspects of performance, special evaluation forms were developed. Some required the evaluation of work method and the finished product; others involved diagnosis and corrective procedures during the work performance. Directions for the examiner explaining the use of each form for each occupation were developed.

Summary—Ten Step Test Development Procedure

1. Organization and utilization of an Advisory Committee, consisting of representatives from industry, occupational specialists, test specialists, and vocational teachers to establish the nature and scope of the examination to establish job clusters, as well as competency levels.
2. Selection and utilization of specialists from the field, test technicians, and vocational teachers to make an analysis of the occupation to determine the behavioral and conceptual factors at each competency level.
3. Selection and utilization of specialists from the field, test technicians, and vocational teachers to formulate a test specification, to develop a test grid for the areas to be tested and the number of questions needed for a comprehensive determination of an individual's occupational competence.
4. Employment of a group of subject specialists, under the guidance of a test specialist, to formulate the test questions and organize the tests.
5. Administration of the test to a recognized competent and knowledgeable individual in the occupational specialty.
6. Evaluation of the results, the test items, sequence, and test revision.
7. Evaluation of the revised tests by professional testing organizations (Psychological Corporation, New York; and the Educational Testing Service, Princeton, New Jersey; and others).
8. Administration of tests to candidates; results are tabulated, analyzed, and, where necessary, items or distractors revised.
9. Validation of the revised tests by administering them to high school vocational program graduates, technical institute seniors, Industrial Arts graduates, and apprentices. The resulting data analyzed for validity, reliability, and possible vocational norms.
10. Tests are printed for use.

Summary—Test Validation Procedures

1. Occupational analysis—critical factors of test content identified by difficulty, frequency, and importance.
2. Agreement by experts as to content of the written and performance examinations.
3. Test item development and review by experts.

4. Trial tests on a sample of each different population, including those who can be expected to have the desired level of skill and those who are not.
5. Analysis, review of test results, and revision, as necessary.
6. Retest and establish norms.
7. Periodic review to determine consistency, to refine, and to update.
8. Maintenance of norms and data for special analyses; i.e., prediction of studies, cut-off scores, EEOC standards, etc.

NEW PERSPECTIVES IN OCCUPATIONAL COMPETENCY TESTING

Beginning in the spring of 1974, National Occupational Competency Tests have been in continuous use nationally. Norms have been developed in twenty-six occupational fields and are updated annually. A Technical Supplement is issued annually reflecting the most recent test data. To date, the principal use of the examinations has been for validation of occupational competence of aspiring teachers and to earn advanced standing in baccalaureate programs for work experience. In many instances the tests serve both purposes.

During this development period of four years, however, other innovative and interesting applications of NOCTI tests have emerged which are worthy of mention.

Pilot Study—Department of Defense

As reported in the 1975 annual report, NOCTI received a contract award from the Department of Defense which provided for testing of up to 360 servicemen in ten occupational fields. Servicemen were to be selected from all branches of the military, with test sites to be identified in four suitable locations in the country. The first segment of the contract testing project was completed in Virginia with Old Dominion University, Norfolk, serving as the test center for the project. Analyses of the test results from the pilot program in Virginia resulted in acceptance of NOCTI tests for advanced standing by Chicago City-Wide Institute. Based on the test analysis data provided by NOCTI, and supported by a staff review conducted by the City Colleges of Chicago, specific credit recommendations were adopted for cut-off scores based on percentiles. Credit hour allocations were developed on a course-by-course basis, based on equivalency of specific NOCTI test content to existing course titles, and independently arrived at by faculty review committees. A report document, *Credit Evaluations for Selected Group of Military Personnel*, based on NOCTI examinations, was issued to the Department of Defense by the Chicago City-Wide Institute. Copies of the report may be requested through NOCTI.

Upon completion of the project, approximately 280 servicemen were tested in NOCTI centers located in Florida, Nebraska, and Texas. In recognition of these testing activities for Department of Defense personnel, The Community College of the Air Force undertook special reviews of NOCTI test materials with the objective of using NOCTI examinations for awarding credit toward advanced standing in their many industrial-technical programs. The potential reach of The Community College of the Air Force in applying NOCTI examinations is international in scope and offers interesting possibilities for expansion and extension of the overall NOCTI program.

Validation Study—Georgia

In cooperation with the State Education Department of Georgia, NOCTI undertook an extensive research program based on occupational competency testing of approximately 300 teachers. The overall objective of the research program was to study the appropriateness and adequacy of NOCTI examinations for use by the state of Georgia in their program of validation of trade and technical teacher competencies, toward certification. The project focused on 16 of the NOCTI examinations, and an equal number of special occupational committees were formed in Georgia with representation from both secondary and postsecondary instructional levels. From four to six judges served on each of these 16 committees and evaluated the NOCTI tests in terms of content. The analysis of findings revealed that these selected NOCTI tests were content valid. Subsequent to the evaluative attention by the occupational committees, a random sample of some 300 secondary and postsecondary teachers in Georgia were selected and tested, using the current NOCTI examination series. The results indicated that national norms could be applied for Georgia teachers and that appropriate cut-off criteria could be derived from would meet the rigorous standards of the Equal Employment Opportunity Commission.

A detailed report describing the Georgia project has been prepared and is available for limited distribution to interested persons. Additional work is under consideration with the state of Georgia, aimed at developing special measures to be derived from criterion referencing of selected NOCTI examinations.

Concurrent Validity Study

For a period of thirteen months, beginning September 1, 1977, NOCTI received a project grant award from the U.S. Department of Labor for a Concurrent Validity Study of the G.A.T.B. using selected NOCTI tests as criteria. The essential structure of the project was to prepare and administer a testing program consisting of both written and performance tests, in cooperation with the U.S. Department of Labor and selected postsecondary trade and technical schools or programs in the United States. G.A.T.B. and NOCTI tests were administered to a final sample of 40 Blacks and 40 Whites in each of four occupations. The samples consisted of randomly selected students enrolled in postsecondary trade and technical programs in (1) Air Conditioning and Refrigeration, (2) Auto Mechanic, (3) Machine Trades, and (4) Welding. Four appropriate geographic areas were selected which could each provide a suitable postsecondary population for occupational competency testing in all four occupations, namely, California, Florida, New York City, and Texas.

Pilot Testing in Florida

The potential use of NOCTI materials for assessment of student achievement has been hampered by lack of student norms and relatively high unit costs. Fortuitously, recent interest and actions in the state of Florida may provide an initial impetus for meeting these two problems, and hopefully will be similarly supported by other member states.

Beginning in the spring of 1977, through special arrangements with NOCTI, the state of Florida has undertaken occupational competency testing of 2,000 graduating students in vocational-technical programs at both secondary and postsecondary levels. With assistance of a modest grant award from the State Department of Education, the University of South Florida has accepted responsibility for implementing the testing program in cooperation with some 15 boards of education and postsecondary institutions. Dr. Raymond Hill, NOCTI Test Coordinator for Florida, is also providing overall coordination for this project, statewide.

The NOCTI test scores derived from the project are expected to identify relative "output" achievement levels among the various programs and to permit more effective administrative judgments leading to program improvement. Individual test scores will be held in confidence and aggregated data will be used in Florida for evaluation of program outcomes upon completion of a given program of instruction.

Accountability—Student Testing

With new federal regulations calling for process and product evaluations, the need for valid instruments is essential. Activities are underway to expand the test development capability of NOCTI to include specific student test materials. Plans have been formulated which spread the costs for this development among interested Consortium members. Among the anticipated benefits from this effort are:

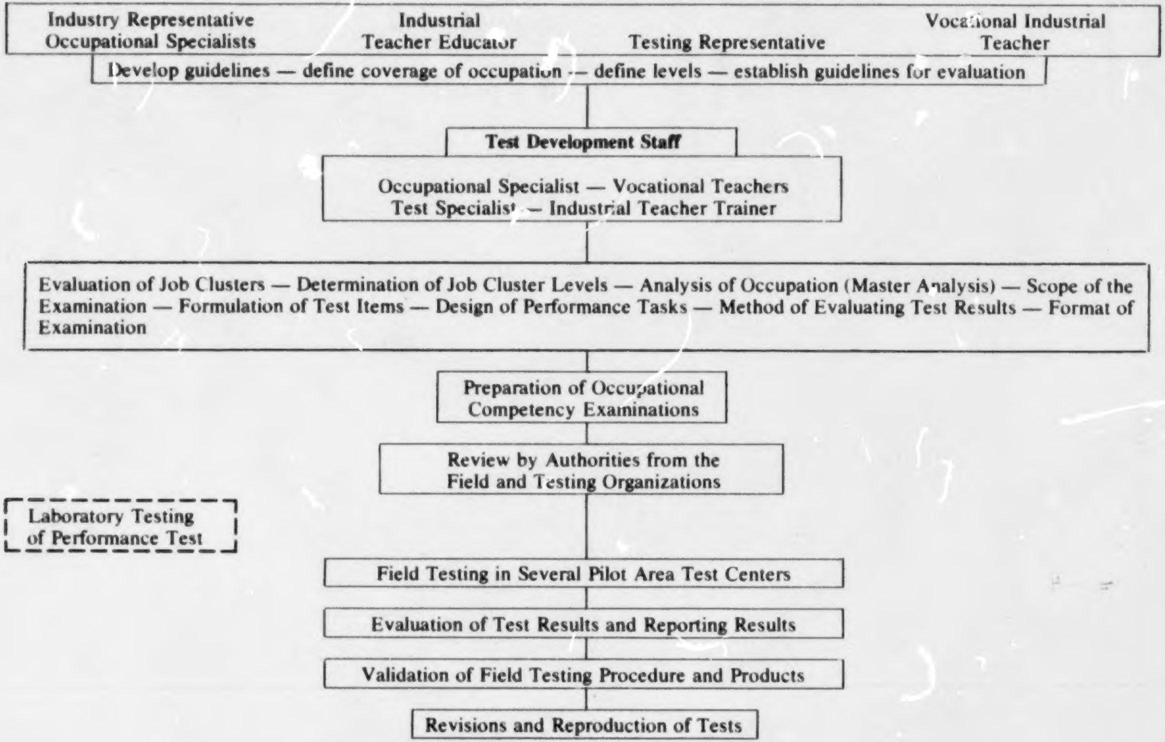
- National standards for program and student assessment,
- Measures which can be used to ascertain program effectiveness,
- A method to establish apprentice equivalencies for vocational school graduates,

- Valid student tests at lower costs because of shared development.

It has been estimated that once initial financing has been obtained, a student testing program could be self-sustaining within just a few years.

NATIONAL OCCUPATIONAL COMPETENCY TESTING PROJECT
SEQUENCE IN OCCUPATIONAL COMPETENCY TEST DEVELOPMENT

ADVISORY COMMITTEE



Industry Representative Occupational Specialists
Industrial Teacher Educator
Testing Representative
Vocational Industrial Teacher

Develop guidelines — define coverage of occupation — define levels — establish guidelines for evaluation

Test Development Staff

Occupational Specialist — Vocational Teachers
Test Specialist — Industrial Teacher Trainer

Evaluation of Job Clusters — Determination of Job Cluster Levels — Analysis of Occupation (Master Analysis) — Scope of the Examination — Formulation of Test Items — Design of Performance Tasks — Method of Evaluating Test Results — Format of Examination

Preparation of Occupational Competency Examinations

Review by Authorities from the Field and Testing Organizations

Laboratory Testing of Performance Test

Field Testing in Several Pilot Area Test Centers

Evaluation of Test Results and Reporting Results

Validation of Field Testing Procedure and Products

Revisions and Reproduction of Tests

REFERENCES

A Plan for the Study of Vocational Education, U.S. Department of Health, Education and Welfare, National Institute of Education, December 30, 1977.

Boyd, Joseph L. and Benjamin Shimberg, *Handbook of Performance Testing*, Educational Testing Service, Princeton, New Jersey, 1971.

Kievet, Mary Bach, *Perspectivism in Choosing and Interpreting Outcome Measures in Vocational Education*, The National Center for Research in Vocational Education, Ohio, 1978.

Prosser, Charles A. and Charles R. Allen, *Vocational Education in a Democracy*, The Century Company, New York, 1925.

Rhodes, James A., *Alternative to a Decadent Society*, Howard W. Sams and Company, Inc., The Bobbso Merrill Company, Inc., New York, 1969.

Schaefer, Carl J. and May W. Huang, "Occupational Competency Measures: Ultimate Component of CBVE," *American Vocational Journal*, March, 1978.

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